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I.

Dissertation

on

Syphilis — or the — Venereal Disease.

By

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Syphilis or the Venereal Disease —

Syphilis is a disease supposed to arise from a peculiar virus, which when applied to certain parts of the human body propagates or multiplies itself, until it produces its peculiar local or constitutional effects. Various opinions have been entertained by different authors with regards to the origin of this disease. Some maintain that it first made its appearance among the Soldiers at the siege of Naples at the close of the 15th century. Others suppose that the disorder was first introduced into Europe from the New World by the followers of Columbus. Other doctrines there are which have many respectable advocates, which I shall omit to notice as being of no practical utility. In consequence of this diversity of opinion among the Older writers upon Syphilis, it is impossible in more modern times to arrive at any definite conclusion upon the subject. This discrepancy of opinion however may perhaps in a great measure be accounted for by the extreme difficulty of ascertaining exactly what the Venereal disease is. So strikingly do the worst forms of Syphilis sometimes resemble some of the simplest affections of the genitals, that it is acknowledged by Surgeons of the most extensive experience to be almost impossible to form a positive diagnosis with regards to the nature of affections of these parts, even with the disease before their eyes. It is unreasonable then to expect that a correct idea

of either the nature or origin of the disorder can be formed from the mere perusal of the various & contradictory descriptions of the older writers. It is necessary however to state that if any confidence can be placed in the general tenor of all the older authors in relation to — the severity of symptoms, the rapidity of progress & the extent & quickness of fatality of the disease which broke out at the siege of Naples towards the close of the 15th Century, it must be regarded as an affection widely differing from the comparatively mild form of Syphilis which we meet with at the present time.

The Syphilitic poison may produce its effects either locally, or constitutionally. When applied to certain parts of the human body it excites an inflammation, attended as is supposed by a specific action in the affected part. This inflammation is followed by ulcers of various kinds secreting a peculiar matter, which alone is supposed to contain the venereal virus. If this matter enter the circulation either from the ulcer or from an abraded surface, or any other part of the body, it manifests its effects upon the constitution in the form of cutaneous diseases, chronic rheumations, caries or necrosis of the bones &c. —

These primary sores & the secondary symptoms following them present an almost infinite variety of appearances in different individuals & probably this is one cause of the great uncertainty which prevails concerning the distinct characters of this disease. Instances are given of several men having connection in rapid succession with the same woman, they all take the disease, some having very severe & others exceedingly mild symptoms, one may have a perfect specimen of Hunterian Chancre & another a very simple ulcer, which will heal under

Proving that the Constitution exerts a powerful influence on the character of the disease.

the mildest local applications & a third perhaps may have both these sores at the same time. Certain Writers have attempted to account for this diversity in the effects of Syphilis by calling in to their assistance the theory of a plurality of poisons. but it is evident that neither this theory, nor differences in constitution, or the parts affected can satisfactorily account for the great variety every day witnessed in the effects produced in the human body by the Venereal Disease.

But although venereal ulcers in their character & consequences depend upon causes entirely unknown to us, it can not be doubted that they are frequently influenced in their appearance & progress by the state of the general health. In weak irritable & Scrofulous habits it is often found that after Syphilitic sores by a judicious course of Mercury have lost their original venereal character & present a healthy appearance, they may in consequence of some unfavorable change in the constitution, again assume their former foul & clinging appearance - & if the inexperienced practitioner is induced by the unfavorable character of the sore again to resort to Mercury, without regard to the general health, the patient will become more & more irritable & debilitated & the local disease will grow worse as the health declines, until the destructive medicine is withheld or the Patient dies. The question has been frequently agitated, whether the Venereal Disease & Gonorrhoea arise from the same infection.

Mr Hunter appears as one of the most conspicuous amongst the supporters of the theory of the identity of the two poisons. He is clearly of the opinion from the numerous & interesting experiments which he has made upon this subject, that both these diseases are produced from one & the same virus, although he acknowledged that the dif-

ference in the symptoms & the mode of cure of the two diseases would incline to a different belief. But experienced Surgeons at the present time, though they consider Mr Hunter as one of the most valuable writers on Syphilis, regards many of his opinions in relation to the nature & treatment of this disease, with much less confidence than they formerly did & his doctrine of the identity of these two poisons as well as many others, now probably finds very few advocates, nevertheless it can not be doubted that foul & ragged ulcers do sometimes arise upon the genitals from Gonorheal irritation & it is supposed moreover that the matter from these same ulcers when applied to the mucous membrane of the urethra will in turn excite a gonorheal discharge. It is well known also, that these ulcers will sometimes assume every appearance of a true syphilitic sore & it is with the greatest difficulty that they are distinguished even by the most practised eye. But it is not so well ascertained that these simple sores are ever followed by any constitutional effects, or that they differ materially from sores in different parts of the body arising from other irritating causes.

A Syphilitic ulcer or Chancre is commonly understood to be a sore arising from a specific virus & capable of producing the Secondary Venereal Disease. When it occurs upon the glans penis it usually commences with a slight itching in the part, a small pimple filled with matter & somewhat indurated soon makes its appearance - the inflammation & tumefaction in consequence of the peculiar nature of the glans, is considerable, the itching is gradually changed into pain which generally increases, until the pimple is converted into an ulcer. If the frenum be the part first affected, a hole is commonly seen eaten through it

by ulceration or it is entirely destroyed. When the Chancre is situated upon the scrotum, or the body of the penis, it usually appears in the form of a large pimple covered with a small scab & attended with more or less hardness which usually terminates rather abruptly in the surrounding substance. As it is not very painful it excites little or no attention until it terminates in ulceration. Syphilitic ulcers present such a variety of appearances & differ so imperceptibly from other sores of the genitals of a very simple nature that they possess no peculiar character by which they may always be distinguished. Some authors it is true have described the different kinds of venereal ulcers with such extreme minuteness that the inexperienced practitioner might be led to believe that the diagnosis & classification of Syphilitic sores is the easiest thing imaginable - that a Chancre or eruption in which Mercury is necessary, can at once be distinguished from the simple sores which require only the mildest local applications to effect a cure. But the practitioner who commences the treatment of Syphilis under this impression will soon finds that he has yet much to learn, before he acquires that tact which his author has assumed to himself & by which he pretends to decide upon the character, either of a primary sore, a bubo, or a secondary eruption by its first appearance & progress. It has also been affirmed that there is only one of the many classes of primary ulcers & that is the indurated & excavated Chancre of Hunter that is ever followed by secondary symptoms - but experience has shown not only that Secondary Syphilis may occasionally follow every variety of venereal ulcer, but also that it is sometimes impossible to distinguish even the unquestionable Hunterian Chancre itself from others of a very mild form. Dr.

Hennen says, that the high & round edge, the scooped surface, the preceding pimple, the indurated base, whether circumscribed or diffused, the tenacious discharge, of a very fetid odor all of which are considered characteristic of the Venereal ulcer of Hunter are all frequently observed in sores entirely unconnected with a venereal origin. The hardened base & edge particularly may be produced by the application of escharotics to the glans, or penis of a sound person, especially if any ulceration or warty excrescence previously existed on these parts. But although the various forms of venereal ulcers run into each other so imperceptibly as frequently to render their diagnosis perplexing & uncertain, if not impossible a proper classification founded upon their appearance & progress is not to be totally disregarded, as the testimony of almost every author upon the subject establishes beyond doubt the existence of several classes of Syphilitic sores sufficiently well marked in their general characters for a practitioner to form a diagnosis precise enough for all ordinary purposes. This fact is not to be understood however as encouraging in the practitioner such a blind confidence in the arrangement of the sores, that he will be induced on the first appearance of an ulcer to prescribe certain remedies in conformity with any particular classification & without regards to the state of either the affected part, or the general health - such a mode of practice is evidently subject to very serious objections.

Venereal ulcers are commonly divided into two classes - The first class includes those usually described by Mr Hunter as the true Syphilitic Chancre for the cure of which he considered mercury indispensable - the seconds class comprehends a variety of ulcers frequently in many respects resembling those of the first class, though as Mr Hunter affirms essentially differing from them in always being curable without the use of mer-

cury. — The genuine Hunterian Chancre has a circular excavated surface, without granulations & covered with a foul, tenacious & fetid discharge. It is remarkable for its indurated & thickened base & edge which terminate rather abruptly in the surrounding parts. It is usually very slow in its progress — when it occupies the body of the penis, its indurated & circumscribed base & edge & its excavated surface are not so well marked as when it occurs upon the glans — it generally in that situation presents a dark livid appearance. The true Syphilitic Chancre is particularly distinguished from other Venereal ulcers by its scooped surface & its hardened & circumscribed base though it frequently resembles other sores of the genitals so closely that the utmost caution is required in its diagnosis.

Venerola superficialis of Mr Evans — or the "Superficial Ulcer without indu-
ficialis ration but with elevated edges". Of all the venereal ulcers this is the most likely to be confounded with the real syphilitic chancre, it most generally occurs upon the scrotum, body of the penis, or external surface of the prepuce — it occasionally resembles in appearance the Phagedenic ulcer, from which it may generally be distinguished by its raised & well defined edges — it usually makes its appearance from three to eight days after an impure intercourse with a redness & itching of the affected part, & in a short time a small pimple with a red base & filled with matter appears — this pimple in a few days is converted into a circular brownish scab, which gradually enlarges until it separates, when a round & foul ulcer nearly on a level with the surrounding parts & surrounded with a red base presents itself. This Ulcer is destitute of all surrounding induration, has a granulated appearance & is seldom attended with much pain. It rarely exceeds the size of a shilling, but when neglected, or improperly managed, it may increase to a much larger extent.

If a patch of these ulcers occupies the orifice of the prepuce, they are apt to excite a permanent phymosis requiring the use of the knife after the sores have healed. This ulcer is usually slow in its progress & has not the smooth fungous appearance of the variety soon to be described.

"Venerola vulgaris - of Evans - or the Simple primary venereal ulcer of Carmichael". This is perhaps by far the most common variety of simple venereal sores. Like the last variety it commences with a small pimple, which soon bursts & forms a scab, under which more or less matter forms & gives rise to considerable pain. This scab soon separates & exposes a round excavated ulcer of a reddish appearance - the bottom of the sore soon fills up & sometimes even rises above the level of the surrounding skin presenting a smooth healthy looking surface seated on a fungoid base without granulations. In some cases the surface of the sore rises above & spreads out upon the sound skin so as to appear as though a ligature were tied around its base. At this stage of the disease, the process of ulceration usually ceases & the sore may remain stationary for a length of time, but it commonly heals in the course of a few weeks. This ulcer usually occupies the glans, or internal surface of the prepuce in men & in women it affects the labia, the perineum, or the folds of the nates. It also occasionally excites phymosis attended with a profuse discharge, or with patchy excoriations of the glans, or internal surface of the prepuce.

"Gonorrhea virulenta - of Carmichael". - The discharge of Gonorrhea sometimes collects under the prepuce & by its irritation occasions an inflammation terminating in small ulcers or excoriations which if neglected, or not properly managed may assume all the appearances of some of the worst forms of Syphilis. They are often accompanied with phymosis & appear to be of the same nature as the excoriations produced by a irritated leucorrheal discharge

They are not venereal signs & they only deserve to be mentioned in connection with Syphilis, to prevent them being mistaken for that disease, as such a mistake might lead to very serious consequences.

in women. They are commonly very simple sores & only require a strict observance of cleanliness + diet to effect their cure. — — — The preceding varieties of venereal ulcers are all remarkable for their slow progress, but the two remaining varieties the Phagedenic & the Sloughing, are distinguished for the rapidity with which they sometimes attack & destroy all the soft parts which oppose their progress.

The Phagedenic Ulcer — The Phagedenic Ulcer is a corroding sore destitute of granulations or induration, its progress is usually exceedingly rapid & is rather accelerated than retarded by the exhibition of Mercury. The glans penis is the part most generally attacked, & sometimes notwithstanding the most vigorous treatment, in a few days it is entirely destroyed. & occasionally the ulceration proceeds until the entire penis is gone. A great portion of the urethra also is frequently eaten away, thus causing the urine to be discharged near the perineum & if the ulceration remain unchecked, it finally destroys all the soft parts in its way sometimes spreading out upon the abdomen. When the sore commences upon the labia in women, it may either make its way towards the womb, or spreads out upon the thigh, producing most frightful ravages in its progress. In consequence of its rapid ulceration, the Phagedenic ulcer is often attended with hemorrhage so profuse as to require a ligature to arrest it, in which case a favorable change usually occurs in the appearance of the sore & it soon commences to heal.

The Sloughing Ulcer — This is generally accompanied with considerable derangement of the general health. It first makes its appearance in the form of a small black spot which attracts so little attention that it may remain for some time unnoticed — the slough however in a few days increases & when it separates the sore beneath in place of presenting the clean & granulated appearance

which usually follows simple mortification, appears as a corroding phagedenic ulcer accompanied with great pain & of a blueish color. After the separation of the first slough, another is formed which in its turn gives place to a third & thus alternately sloughing & ulcerating, the sore often progresses until the whole external organs are involved. When much general or local inflammation prevails the progress of mortification is much more rapid. After these sores have healed they often leave indurated spots especially disposed to ulcerate again. — The Sloughing is distinguished from the Phagedenic ulcer by the peculiar hardness of its base, which is particularly manifest when the sore is situated on the internal surface of the prepuce. — — — The last two varieties of ulcers are supposed to owe their peculiar character more to differences in constitution & climate than to any distinct virus separate from that which gives rise to the other varieties of venereal ulcers. Individuals of a scorbutic, scrofulous, or irritable habit, those who have been confined for a long time to an unhealthy atmosphere, or a hot climate & such as have been restricted to a spare & unwholesome diet are most liable to the sloughing & phagedenic ulcers - they are comparatively rare in our climate.

ment Treatment — With regard to the treatment of Syphilis it was formerly believed that a true venereal chancre always progressed from bad to worse & that unless the disease were arrested by the timely exhibition of mercury the patient would fall a victim to this direful malady - & in conformity with this opinion patients were not considered safe unless they were seen with their faces enormously swollen their salives flowing profusely & their tongues hanging from their mouths. But although the practitioners favorite remedy was thus pushed, he frequently had the mortification of seeing his patients still suffering under some of the worst effects of this disease - many lost their noses & palates some were affected with nodes

& frightful phagedenic ulcers & others suffered the most dreadful mutilations from sloughing ulcers of the penis. Happily however experience has shown that in no form or stage of the venereal disease, is it proper to exhibit mercury to the unreasonable extent which custom & ignorance formerly sanctioned. Violent salivations are now deemed not only useless in securing the constitution from the effects of the venereal virus, but extremely pernicious, as they frequently promote instead of preventing the secondary symptoms) & the fact of even the Hunterian chancre as well as even the milder venereal sores admitting of cure without mercury must now be acknowledged upon the unequivocal testimony of almost every modern surgeon.

But recent authors of acknowledged merit still differ very materially concerning the use of this remedy in the treatment of Syphilis. They all agree that in the cure of the real venereal chancre it should not be omitted. But if it be recollected that this is only one of a great variety of Syphilitic ulcers, which are often with the greatest difficulty distinguished from each other, it must be evident that this affords us very little aids in arriving at a definite conclusion with regard to the circumstances under which Mercury should be used, as long as they differ so widely in relation to the treatment of the other varieties of Syphilitic affections. In order to form a correct opinion upon this subject, it should not be forgotten, that though the possibility of curing every sore upon the genitals without the use of this medicine has been satisfactorily ascertained & though its abuse has frequently led to the most disastrous consequences, yet the expediency of a judicious mercurial course in the treatment of Syphilis must evidently rest upon other considerations.

In the treatment of this as well as in any other disease, the practitioner will most naturally select that remedy which will relieve his patient the soonest & with

that they will usually heal very readily without mercury, though perhaps not as quickly, as when the system is brought moderately under the influence of this remedy.

the least injury to the general health, & the propriety of the mercurial treatment of Syphilis must evidently depends upon the quickness of its cure & the frequency & severity of the secondary symptoms which follow its cure.

Respecting the comparative quickness of cures effected by means of mercury the reports of different Hospitals vary very much. Although they establish beyond doubt the fact that cures are often effected without the use of this remedy, yet in cases of real Venereal Chancre the weight of testimony appears to be decidedly in favor of its judicious exhibition — but in relation to the simpler forms of venereal sores it is very generally believed, that they will usually heal quite as soon without mercury as with it. A question however which should have far more influence with regard to the treatment of Syphilis than the slowness or quickness of cure, is, whether secondary symptoms are more frequent after the mercurial, or non-mercurial treatment. On this point reports again vary, as in fact they do upon almost every subject connected with Syphilis — on the whole however, it appears from the most extensive ~~& partial~~ imparted reports that secondary venereal diseases are more frequent when primary ulcers are treated promiscuously without mercury. But it is not to be inferred from this, that in order to have the least number of secondary cases possible, mercury should be administered indiscriminately for the cure of every primary ulcer, for this mineral itself when given for the cure of primary sores (which do not require its assistance), when the state of the constitution does not warrant it is frequently as injurious in its effects, as some of the worst forms of Syphilis. The result then in relation to the employment of mercury in the treatment of the venereal disease, would appear to be, that its total rejection is calculated to lead to disastrous consequences, as well as its indiscriminate use, that with the exception of the Phagedenic & Sloughing ulcers, the cautious exhibition of this remedy for the cure of primary sores, is generally so perfectly harmless, that its use should not be withheld

in such cases as do not in a reasonable time yield to a gentle mode of general & local treatment.

The proper course then for the cure of Syphilis, appears to be, to commence with mild & gentle dressings, cleanliness, rest & abstinence & if the sore does not in a reasonable time assume a healthy appearance, more active local applications may be resorted to. But if the disease still resist the milder means made use of for its cure, no objection can exist to a trial of the cautious exhibition of mercury, never however to the extent of producing Ptyalism.

Hunterian Chancre — When this ulcer is very small, or when it first makes its appearance, it may often be entirely destroyed by caustic or the knife. & as the glans generally bleeds very profusely when cut into, perhaps touching the sore with Nitras Argenti is preferable to removing the affected part with the knife. The application of the Caustic should be repeated from time to time until the surface of the sore assumes a healthy granulated appearance, when it usually heals in a very short time. A chancre however can only be destroyed by caustic when it is in its incipient state & though excision has been sometimes practised with complete success when the sore has attained a larger size, it is generally considered a safer practice to treat the sore constitutionally. When a Venereal Sore is entirely destroyed on its first appearance, by either of these means, it is rarely succeeded by constitutional symptoms. The practice however is not entirely void of danger. The Syphilitic virus is occasionally confined under the eschar produced by the caustic corroding the parts underneath & finally produces a deep and dangerous ulcer & when much local inflammation prevails particularly in weak & irritable females, the application of caustic is often followed by very alarming symptoms.

Mr Hunter believed that in the true venereal ulcer mercury should always

be administered on its first appearance without regard to the state of the constitution. But the prevailing opinion now is that mercury when given in an irritable or phlogistic state of the system, or when much local inflammation is present materially accelerates by its irritation, the progress of the disease the appearance of secondary symptoms, & may give rise to dangerous phagedenic or sloughing ulcers. It would therefore probably be the best practice first to reduce the general & local inflammation by antiphlogistic means, low diet &c - & if the Patient be of an irritable weak or scrofulous habit to remove these contra-indicating conditions previous to the use of mercury, by pure air, rest, tonics Hyd. Pot. Sulph. & other appropriate remedies, but after this if the appearance of the sore do not improve, no reason can be assigned why a careful exhibition of mercury should not be commenced.

With respect to dressings for Chancres - much confidence was formerly placed in those which contain mercury & no one will doubt that they are very beneficial in certain states of the sore, but the belief in the absolute necessity of their general application, must be very much weakened by the established fact, that mercury in any form is not absolutely necessary for the cure of Syphilis. As a general thing mild & slightly astringent lotions made of the Sulph: Zinci: Cupri: &c are serviceable - but if the ulcer become indolent, some more stimulating applications should be resorted to - such as the Ung: Hyd: Nit: the Ung: Hyd: Nit: Ox: or a strong solution of the Sulph: Cupri: or Nit: Argent:. The most common of all the mercurial applications & perhaps the best, is the common Black Wash made of Calomel & Lime Water, or the Yellow Wash made of Corrosive Sublimate & Lime Water. When the granulations rise too high upon the surface of the ulcer they should be cut down by the repeated application of caustic & as cleanliness is all important in the treatment of Syphilis, the dressings cannot be changed too often. When an ulcer is situa-

This ulcer is supposed by some writers to invariably become more ulcerate under the use of Mercury. This is undoubtedly true as long as an inflammatory irritable or vicious state of the system prevails. But if attention be first directed to the improvement of the general health, it will be found that Mercury may frequently be resorted to in the treatment of these sores with decided advantage.

ted upon the glans penis, or upon the internal surface of the prepuce & is conceal-
ed from view by a phymosis, some gently astringent lotion, or a weak solution of
Nit: Argent: should be frequently injected under the prepuce, to remove any mat-
ter that may collect there & cause additional ulceration.
When a sore which at first presented the real Syphilitic character & appeared
to be mending changes its nature & assumes the appearance of a phagedæn-
ic or sloughing ulcer, this unfavorable change may generally be attributed
either to bad treatment, or some alteration in the constitution, or some local
irritation, under which circumstances, the use of mercury should imme-
diately be discontinued & recourse should be had to pure air, rest, nitric a-
cids, sarsaparilla, guaiacum & the anti-syphilitic woods generally. The
best application in such cases, is an infusion of Opium in the proportion
of a ʒj of Opium to ʒviij of Water.

La Venerola Superficialis. This ulcer is rarely benefitted by the use of mercury, but
ris frequently becomes very obstinate under its influence, not being disposed to
heal although a mercurial action may have been maintained in the sys-
tem for several months. It generally however heals very readily under the
use of moderately astringent & soothing applications, such as weak solutio-
ns of Sulph: Zinci — Cupri — acet: Plumbi: &c. The common yellow & black
mercurial washes are also frequently very useful. These applications wi
th the decoction of sarsaparilla, rest & an abstemious diet are usually
all that is necessary to accomplish a cure in this variety of venereal
sore.
in spite of all remedies.

La Venerola Vulgaris — this sore commonly runs its course, its treatment is much
ris the same as that of the last variety of ulcers. Nothing but emollient poultices &
the simplest soothing dressings are required, until the scab separates & ex-

poses a raised & fungous ulcerated surface. When this occurs no application answers better than a solution of Sulph: Cupri, or a solution of Corrosive Sublimate in the proportion of two grains to the ounce of water. Much benefit may be derived also in this stage of the disease from the application of Citrine Ointment either alone, or mixed with a small quantity of Zinc Ointment. All local applications however, should rather act as stimulants, than as escharotics & the patient in the early stage of the disease, should pursue an abstemious diet, remain quiet & keep his bowels loose.

Gonorrhea Virulenta — when simple excoriations of the glans penis & internal surfaces of the prepuce or labia, arising from the irritation of gonorrheal or vitiated leucorrheal discharges occur, they may generally be cured very readily by the observance of a strict diet regimen & simple local applications. In a vitiated habit however these sores may sometimes assume a foul, ragged, & sloughing appearance & in such cases the remedies should be directed principally to the constitution.

Phagedenic Ulcer — the exhibition of mercury in this form of primary ulcer before the sloughing process has been arrested, invariably renders the sore more intractible, but after the unfavorable state of the constitution, upon which the peculiar nature of the sore frequently depends, has been corrected by appropriate remedies & the ulcer has assumed a healthy though an indolent appearance, this remedy may often be employed with the happiest effect. Some authors have been of the opinion that in the treatment of the Phagedenic ulcer, the use of mercury should be suspended until the sore has healed, when it should always be resorted to, in order to prevent Secondary symptoms, but it is now generally conceded, that it would be better to treat these symptoms after they make their appearance, than rashly

to subject the patient to the irritation of mercury, when there is a probability of his being free from the disease. In order to arrest the remarkably rapid progress of ulceration in this variety of venereal ulcer - when much general or local inflammation prevails, if it is probable that upon this condition of the system the peculiar nature of the sore depends, immediate recourse should be had to vigorous antiphlogistic measures, such as general v.s. antimonials & purgatives with an abstemious diet, anodynes, rest in a recumbent posture & antiseptic poultices to the part.

When in consequence of the rapid destruction of the parts, a spontaneous hemorrhage occurs, as is not unfrequently the case, it generally checks the progress of ulceration & causes the sore to present a healthy appearance, & on the same principle much advantage is often derived from pairing the irregular & jagged edges of the sore & encouraging the bleeding by the application of warm fomentations. If the ulcer has lost in some degree its phagedenic character & advances more slowly a weak solution of Nit: argent: or the black & yellow mercurial washes are frequently very serviceable.

ing Sloughing Ulcer - the treatment of this sore differs very little from that of the Phagedenic ulcer. The use of mercury should never be resorted to, until the sore has lost its sloughing character & presents a healthy appearance. When much constitutional irritation prevails attended with a disposition to gangrene, heat & dryness of the skin, a furred tongue & considerable swelling of the affected part, antiphlogistic measures should be promptly adopted. If on the other hands after the general & local inflammation has been moderated, the system is much debilitated, recourse should be had to tonics; nitric acids; pure air; sarsaparilla &c. As long as much local irritation is present anodyne & emollient applications are the best. The Practitioner will often derive much benefit from the

use of Nitric Acids or Nit: Argent: in such quantities as to destroy the whole surface of the ulcer & the subsequent application of stimulating salves or lotions. Carmichael recommends, venice turpentine, balsam copaiva, or balsam peru, either alone or mixed with equal parts of olive oil, or a lotion of one part of tinct: myrrh to seven parts of Camphorated mixture. Prompt advantage is sometimes derived also in ulcers of this kinds from the application of poultices made of equal parts of Peruv: Bark & Charcoal finely pulverized, with perhaps a little yeast.

In the treatment of the phagedenic & sloughing ulcers, authors usually place great stress upon an antiphlogistic practice, & this is undoubtedly proper in cases which are attended with high general or local inflammation - but perhaps if not one half at least a great portion of those ulcers which present a phagedenic or sloughing appearance derive their peculiar character from some particular state of the constitution entirely unconnected with inflammation - in such cases it is evident an uniformly antiphlogistic mode of treatment must sometimes be productive of much mischief. An intemperate weak, or irritable habit, long confinement in an unwholesome atmosphere, or an unhealthy diet will cause a venereal as well as any other ulcer to become phagedenic however originally mild it may have been in its nature. But no intelligent practitioner, certainly, would attempt to improve such a sore by blood-letting, antimonials, or purgatives. The proper treatment would evidently be, to restore the tone of the constitution as far as possible by the exhibition of tonics, sarsaparillas & nitric acids, a generous diet, pure air, rest &c. -

Warts - a disposition is frequently produced by the previous occurrence of Chancre, to cutaneous tumors, or excrescences called Warts. It is now-

found to be a successful & safe practice to remove these warts with the scissors & if this is attended with much bleeding, or they subsequently show a disposition to return, they may occasionally be touched with caustic. They may frequently be removed in a short time also, by a strong solution of Sulph: Cupri: —

As it is sometimes very difficult to keep the dressings upon chancres in women, it would generally be better to have the affected part frequently washed with some anodyne, or mild astringent lotion, as the black or yellow mercurial washes, or a solution of equal parts of Sulph: Zinci & Acetat: Plumbi & if the sores extend into the vaginae, that passage must be kept open by bits of cotton moistened with the same washes.

Bubo — a Bubo is generally understood to be, a swelling occurring in the lymphatic system, especially in the glands & arising commonly from some irritating matter, which is taken up by the absorbents & conveyed into the circulation. On its passage through the vessels, this matter by its irritation excites an inflammation, the character of which depends upon the nature of the poison producing it. This inflammation may occur in the lymphatic vessels themselves, or in the glands with which they are connected, its usual seat is in the glands & for the reason probably that the absorbed virus is in some measure detained in the organs & thus has a better opportunity of communicating its specific nature to them than to the vessels. An inflamed lymphatic in men looks like a cord running along the back of the penis extending to some lymphatic gland in the groin, occasionally however it terminates at the pubis. The matter which when absorbed gives rise to an inflamed absorbent may be derived from different sources, it most commonly however arises from

a chancre, & the sores resulting from the opening or spontaneous bursting of a Bubo, resemble in every respect a true syphilitic chancre, the only difference being in regard to size. But it should not be forgotten that swellings of the lymphatic glands may arise from other affections & should be carefully distinguished from those which have their origin in the venereal virus. The irritation caused by a gonorrheal or a vitiated leucorrheal discharge frequently occasions swellings of the absorbents closely resembling the true syphilitic bubo. Enlargements of the lymphatics which may be mistaken for buboes also occur in scrofulous habits, without any perceptible cause & are often attended with fever, or the common symptoms of a cold. The irritation likewise of the inguinal glands by the mechanical action of mercurial ointments, sometimes causes their enlargement.

Though it is impossible always to distinguish these various swellings from the syphilitic bubo, yet they generally present a character sufficiently marked to lead to their detection. Buboes which have not their origin in the venereal virus are usually indolent & slow in their progress & are attended with very little pain, they do not generally suppurate but often become stationary, the inflammation attending them is generally very much diffused, but light in proportion to the swelling & the disease usually extends to more than one glands. Their progress may occasionally be more rapid than usual, but then they become much more diffused & less painful than the venereal bubo.

Such swellings of the above description sometimes occur in connection with primary syphilis & much difficulty has been experienced in determining whether they arose from constitutional causes or from the absorption of syphilitic poisons. Perhaps in such cases the matter in

its passage to the circulation by its irritation excites scrofulous swellings of the absorbents, without communicating to them its specific character. A mixed case of this kind might readily occur in strumous habits in which the lymphatic glands are peculiarly disposed to enlargement from the slighter causes. — A Bubo arising from a chancre usually occupies the groin nearest the primary ulcer, in which respect it differs from glandular swellings arising from a scrofulous habit or from a gonorrheal discharge as they may occupy either groin indiscriminately. Owing however to the irregularity in the distribution of the absorbents, a venereal bubo may be variously situated, upon the thigh before Poupart's ligament or near the pubis.

A Bubo usually begins with a sense of pain in one of the inguinal glands, & on examination a small hard tumor is soon perceived, which gradually enlarges & becomes very painful & unless checked in its progress it soon advances to suppuration. The tumor is at first somewhat circumscribed & may be easily moved about in the cellular membrane under the skin, but as it advances to suppuration, it by degrees becomes more diffused. Occasionally it is ~~accompanied~~ complicated with an erysipelatous affection, in which case the inflammation generally becomes more widely spread, but less disposed to terminate in suppuration. After the Bubo has suppurated, it is usually attended with a copious discharge of matter, an aching pain, a hardened feel of its base & a dark foul appearance.

new Treatment of Bubo — as true venereal Buboes & other simple swellin- to gs of the lymphatics often so closely resemble each other, that it — is often impossible from their appearance & progress to determine their

true character, it is evident that the same difficulties present themselves here, which are met with in primary ~~sores~~ in relation to the proper course of treatment to be adopted. But it should be remembered that no form of venereal bubo, is as Mr Hunter affirms always incurable without the use of mercury, for it is now well ascertained that Buboes when left to themselves will often heal without any treatment, but the mildest dressings & by some it is maintained that they occur on the average with less frequency & are less disposed to ulcerate when the primary sores have been treated without mercury, than in those cases in which this remedy has been used — this however is not the case when mercury has been properly used. Many of the older surgeons entertained the same exalted opinion of the efficacy of this mineral in the cure of Bubo, that influenced them in the treatment of every form of the venereal disease & their treatment was accordingly based upon the belief that the cure of bubo, always depended upon the quantity of this medicine that could be made to pass through it, by rubbing mercurial ointments upon surfaces from which they may be conveyed directly through the gland by the absorbents, but this as well as many other dangerous doctrines in relation to the use of mercury has long been exploded & it is now generally acknowledged that this remedy unless used with the utmost caution, in the treatment not only of primary syphilis, but of every other form of the venereal disease may be productive of irremedial mischief.

When a Bubo first makes its appearance, an attempt should always be made to disperse it — and the probability of success ar-

tending the attempt at any stage of the tumor, depends upon the progress which it has made. If it be very large & suppuration has already commenced, or is near at hand, any means exerted to reduce the swelling, only retards & not prevents the ulcerative process & thus protracts the cure. When however the tumor becomes much inflamed & painful, but is not expected immediately to suppurate, a prompt antiphlogistic course with emollient applications will often put a stop to its further progress & after the pain & inflammation have somewhat abated Nit: Argent:, on account of the peculiar influence which it frequently exercises over deep-seated inflammations, may sometimes be applied in its solid state to the surface of the tumor with a very good effect. Blistering & irritation with Tart: Emet: ointment, or the constant application of Hyd: Potass: ointment to the part, after the local inflammation has been reduced, are also frequently found of much service in dispersing Buboes. If the tumor be attended with erysipelatous or scrofulous inflammation, the exhibition of bark or conium with poultices made of sea-weed are highly recommended.

But it often happens that a Bubo proceeds to suppuration in spite of the most active remedial means & it should then be treated in the same manner as a common abscess. Before opening it the matter should be allowed to remain until fluctuation becomes perfectly distinct, as the ulcer will subsequently be found to heal in a much shorter time, when the abscess is left until it becomes fully matured, than when it is opened too soon. It may be opened either with caustic or the lancet, but unless the tumor

be very large so that too much skin may be left after it is opened & give a jagged & undermined edge to the sore. the lancet is generally preferred. at a proper time then, a free incision should be made the whole length of the tumor & the matter discharged. Many practitioners recommend that a seton be passed through it, or merely a puncture be made in it large enough to allow the matter to flow out, while others prefer leaving the abscess to burst spontaneously, but when the tumor is perfectly ripe, there certainly can be no objection to relieving the patient by giving vent to the matter, & it will generally be found that those Buboes which are opened with a small orifice may continue to discharge a thin ichorous fluid from these fistulous openings for a long time & are always much slower in healing, than those which are opened at first by a free incision & dressed in a manner that will cause them to heal from the bottom. On account of the large eschar which an incision often leaves when extended the whole length of the Bubo, it would do as well in many cases, to discharge the matter by a free incision in the most pendulous portion of the tumor & keep the orifice open by small bits of lint which are occasionally to be removed & the abscess washed out by injecting the Sol: Nig: or some mild astringent wash. After the abscess has been freely opened an emollient poultice may be applied till the inflammation is moderated & the sore presents a cleaner appearance, when the ulcer may be sprinkled over with a small quantity of Calomel & dressed from the bottom with lint moistened with the black or yellow mercurial washes. a mild stimulating ointment, or a weak solution of Sulph: Cupri: may also be applied with a very good effect. If the sore after the use of these simple local applica-

tions & an abstemious diet, still present an indolent & unfavorable appearance. the practitioner should commence a careful mercurial course if he has not already made use of this remedy, not forgetting however that the exhibition of this remedy, requires the utmost caution, particularly in a weak irritable & scrofulous habit (& it is in such that Buboes generally occur) & if the ulcer assume a more unfavorable character under its use it should immediately be discontinued.

Many Surgeons are in the habit of depending principally for the resolution of a Bubo, upon the application of mercurial ointment to the part, without much regard to the state of the tumor, or the general health — but this practice is quite as well calculated to accelerate, as to retard suppuration. after the general & local excitement have been moderated somewhat by local blood-letting, laxatives & antimonials &c, mercury may generally be considered as our most efficient remedy in preventing the suppuration of a Bubo, but if this medicine be resorted to when an inflammatory state of the system, or the affected part is present, it may give rise to obstinate sloughing ulcers.

When the sore remains soft & flabby & discharges a copious, thin fluid much benefit is often derived from the application of a weak solution of Nit: Argent: or the black mercurial wash 2 or 3 times daily, or from a poultice made of equal parts of Peruvian Bark & Charcoal, with the internal use of full doses of Conium & Opium. If after a Bubo is opened a portion of it remain indurated, frequent cathartics with the ordinary simple local applications are generally recommended. — Sometimes after there is every reason to bel-

ieve that the glands have lost their original syphilitic character, they remain in consequence of a scrofulous or depraved habit, or the injudicious use of mercury, enlarged & indurated & occasionally attended with several sinuous openings, communicating with each other under the integuments & discharging a thin ichorous fluids. Mercury always renders this condition of the glands worse, & if persisted in too long may give rise to a foul phagedenic ulcer. The internal use of Hyd: Prap: or Bark with pure air, are highly serviceable in such cases, & when fistulous openings communicating with each other occur it would be well to pass a director through the canal running from one opening to another & with a bistoury lay the two holes into one, & if the sore be then dressed so as to granulate from the bottom, it will generally soon heal.

When the ulcers consequent upon suppurated Buboes are surrounded with projecting, indolent & undermined edges, resembling very much the primary ulcer with an elevated circumference, the removal of their edges with the knife, usually very much facilitates their cure. The knife is usually preferred for this purpose to caustic, because it is much more expeditious. A mercurial course always increases the tendency of these sores to burrow & is often followed with a frightful destruction of the surrounding parts. The Nitric acid & Sarsaparilla. Bark & other medicines calculated to improve the general health are most serviceable in this form of Bubo.

Occasionally Buboes remain stationary for a long time & gradually become hard & scirrhus. such cases are probably scrofulous at first, or soon become so after their venereal taint is removed. They are com-

monly ~~removed~~ most benefitted by the free use of Conium, or some of the preparations of Iodine — Hyd: Potass: ointment, sea-weed poultices & by sea-bathing.

lis. Secondary Syphilis — When the syphilitic virus is absorbed by the lymphatics & conveyed by the circulating mass, it predisposes certain parts of the body to assume the venereal action. These parts may for a long time remain uninjured by the poison, but unless the predisposition be previously removed by some remedial agent, they will ultimately be affected by a disease depending in its character in a great measure, upon the nature of the part affected & the state of the ~~circulation~~ constitution.

The Syphilitic poison usually enters the circulation from a chancre, an abraded surface on some part of the body, or, as some allege from the surface of the body without any previous ulceration. It might be expected that the secondary symptoms thus produced would be similar in their natures to the primary ulcers producing them, but in many respects they differ very materially. The primary disease is always found to be of the same nature whether it occur upon the genitals, or any portion of the common skin — it is always attended with more or less pain & inflammation & is comparatively rapid in its course. But the constitutional effects of the poison are exceedingly various in their appearances & except in particular cases are attended with little or no pain & are very slow in their progress. They are however very much influenced in these respects by the constitution & the nature of the parts upon which they are located & ulcerations of the tonsils, uvula, & nose like primary ulcers are frequently rapid in their course

situated upon an indurated & thickened base & covered with a foul ash colored discharge which can not be removed, but they are seldom attended with as much pain or inflammation as a Chancre.

The parts in which the Secondary Symptoms generally first appear are the skin, throat, nose, inside of the mouth & sometimes the tongue. The periosteum, fascia & bones are usually affected at a later period, but no general rule can be given with regard to the time in which the disease manifests its effects, after the virus enters the system, it may appear in a fortnight, in six weeks, or in six months; perhaps the average period may be near six weeks.

Mr Carmichael, to whom the profession is in an especial manner indebted for his valuable matter on this subject, believed that certain primary affections, are always followed by a peculiar train of constitutional symptoms, so that he could always tell from the appearance of the secondary disease, what had been the character of the preceding primary ulcer & conversely, if he saw the primary affection, he could predict the nature of the secondary ~~affection~~ symptoms most likely to succeed it. But although his extensive investigations into the nature of the venereal disease, have contributed as much towards the elucidation of this abstruse subject, as those of any other writer, yet the weight of authority in relation to the uniformity in the connection of certain primary ulcers with particular secondary appearances appears to be decidedly against him. Intelligent & experienced surgeons generally concur in the opinion that so far from any regularity being observed, either in the appearance of venereal eruptions upon the skin, or in their connec-

tion, with certain primary affections, experience has satisfactorily proved, that the same ulcer may be followed simultaneously or successively upon the same individual, by eruptions, of a scaly, a pustular, a vesicular & a papular character — & that chancres of the same nature in appearance & progress may produce various kinds of eruptions upon different persons, although treated upon the same principle. Sometimes the simplest primary sore is followed by the most malignant secondary symptoms & the phagedenic & sloughing ulcers are often succeeded by a very mild form of cutaneous eruption. These facts which are incompatible with Mr Carmichaels theory must be admitted upon undoubted authority, although they materially increase the vast obscurity which already surrounds this subject, & almost precludes the hope of ever bringing the exact diagnosis of Syphilis to a final settlement.

Secondary Eruptions — Venereal eruptions present such a variety of characters, that there is scarcely a form of cutaneous disease which they may not occasionally assume, & hence the great difficulty experienced in describing accurately their distinguishing characteristics, so great indeed is the uncertainty connected with these eruptions, that doubts have been entertained whether any disease corresponding to the descriptions which the older writers give of Secondary Syphilis really exists.

Secondary Eruptions generally make their appearance in the form of mottled discolorations, pustules, or papulae upon some part of the body. They are commonly very abundant upon the face & neck. Their color which is less livid than that of ordinary eruptions, is

usually a brownish red of different shades. Exposure to colds accelerates their progress, while warmth retards & ameliorates them. The eruption sometimes presents the appearance of distinct blotches which often pass unnoticed until they are covered with a whitish brown scurf. These blotches are at first frequently attended with considerable inflammation, which gives them a shining transparent appearance, particularly observable in very warm weather. After the inflammation is somewhat moderated, the scaly cuticle, usually peels off, leaving smooth copper-colored spots, which circumstance is often mistaken for a decline of the disease, until a second scurf forms. These scaly scurfs are at first very thin & seldom exceed the size of a shilling, but each successive scurf becomes thicker & thicker until a common scab is formed, under which matter collects & finally produces an ulcer, which spreads in a slow & gradual manner. Occasionally also a papular eruption occurs attended with slight febrile symptoms, headach & aching pains in the joints — it is usually scattered copiously over the forehead, chest & back & more thinly over the extremities. When a pustular eruption occurs, it is usually preceded by fever & appears in successive terminating speedily in scabs & superficial ulcers, which generally heal from the centre, while the ulceration extends along the circumference. Syphilitic eruptions occasionally occur on the palms of the hand & soles of the feet & present a singular appearance of masses of dry friable scales, very easily removed & exposing spots of a livid color, with an indurated state of the skin & subjacent structure — sometimes the extremities

of the fingers & toes become affected & the nails are gradually separated. When the eruption is situated between two portions of skin in contact with each other, as between the nates, between the scrotum & thigh in the arm-pits &c, it is usually accompanied with an elevation of the skin, which is swollen into a white soft surface, discharging a light colored matter.

These are some of the most common forms which Secondary eruptions assume, but like primary ulcers they run into each other so imperceptibly & so strikingly resemble cutaneous diseases which have not their origin in the Syphilitic poison, that it becomes necessary in order to form even a probable diagnosis of any cutaneous disease, to rely more upon its history, than upon any peculiar appearance, which it may at any time present.

When the Secondary effects of Syphilis appear in the throat they usually assume the form of an ulcer, attended with very little pain, inflammation or tumefaction — it exhibits a pale loss of substance from the body of the tonsil, has a well defined edge & a foul white surface, covered with a thick matter which can not be removed with difficulty. Deep ulcers of the tonsils however occur with defined edges which are not to be regarded as the effects of Syphilis. A slough of an enlarged tonsil, occasionally occurs, which when about to separate gives to the sore a foul crupped appearance & the case becomes still more puzzling after the slough separates, as the disease then presents much of the characters of a venereal ulcer. In such cases it would be well for the practitioner to suspend his judgment with regard to the nature of the disease

until some light has been thrown upon the subject by the progress of the sore. as these ulcers are frequently found to heal very kindly when left to themselves & leave no evidences, but their appearance, of being of a syphilitic character.

Common inflammation of the tonsils is usually attended with too much pain, inflammation & swelling, & its febrile symptoms run too high to be mistaken for a venereal sore throat — it usually suppurates moreover in the centre, forming an abscess, which bursts by a small opening & never looks like an ulcer which begins on the surface of the tonsil & as soon as the abscess bursts, the inflammation subsides & the disease terminates. A chronic enlargement of the tonsils also occurs occasionally, in persons of a strumous habit & portions of coagulable lymph which are thrown out on the inflamed parts are sometimes mistaken for the sloughs or foul surfaces of venereal sores — by removing the matter with a probe, the sound surface of the tonsil beneath is revealed & the character of the disease determined beyond a doubt.

Nodes — The affections of the periosteum, fascia, tendons, ligaments & bones, are commonly the last symptoms of the venereal disease. Its progress in this form is very slow & except in particular cases, is attended with but little pain. When it attacks the periosteum it produces those peculiar swellings commonly called nodes, which frequently resemble scrofulous swellings or chronic rheumatisms & on account of their close attachment to the bone, are often mistaken for exostoses. Sometimes they make their appearance upon a bone when the patient has not been exposed

to new infections for many months & as they attended with little pain, they may attain considerable sizes before they are noticed. They are slow in their progress & when they suppurate they discharge a sanious slimy matter. The various non-syphilitic swellings which are liable to be mistaken for nodes, generally appear from the first to affect the periosteum & soft parts covering the bones & not the bones themselves, no considerable pain, redness & swelling of the skin are witnessed from their first appearance. They usually arise suddenly, are rapid in their progress & speedily disappear & they are consequently more inflammatory in their character than venereal nodes.

A very important fact appears now to be established by extensive Hospital reports, in relation to the frequency of Nodes under particular circumstances. It would seem from these reports that mercury when immoderately employed, or when employed cautiously & the patient is subsequently exposed to colds & damps, tends materially to increase the frequency of Nodes as a sequel of the venereal disease, for unless this medicine be given for the cure of the primary disease, these affections of the bones scarcely ever occur. As mercury however when given for a long time & in large quantities for other diseases is never followed by the same effects, the only reasonable conclusion seems to be that Syphilitic nodes are the result of the combined action of mercury & the venereal virus. This infrequency of Nodes, is perhaps the most important circumstance, connected with the non-mercurial treatment of Syphilis. Since it has been ascertained that the simplest cases of this disease, can be very readily cured without this medicine, & that the more ir-

stimate may be made to yields with a smaller quantity of it than the older Surgeons gave, these tumors have become comparatively rare.

Treatment — It must be admitted that the various forms of secondary symptoms may generally be removed by a long course of the usual diaphoretic ptisans, Tonics, a proper diet & other simple means calculated to improve the general health & that mercury can therefore no longer present a claim to the character of a specific in this disease. Ascertaining this fact & witnessing the baneful effects sometimes produced by an unguarded use of this remedy, that it sometimes converts the nasal into a frightful ulcerated cavity & causes the tibia ulna & nasal bones to come away in pieces, a certain class of practitioners, particularly those who have practised in southern climates, or amongst patients whose mode of living, has led to a depraved constitutional habit, have assumed a position the reverse of that of the older surgeons & maintained that Syphilis can & always should be cured without the use of mercury. But the prevailing opinion now is, that the total rejection of mercury & its indiscriminate use in the cure of this disease are two extremes equally repugnant to modern experience. That this mineral when employed judiciously is one of the most useful medicines in the treatment of Syphilis, but when employed unguardedly, or in an improper state of the general system or the affected part, it becomes a most dangerous remedy.

Before commencing the use of mercury in the Secondary venereal disease - particular attention should be paid to the state of the constitution. If much general or local inflammation exist, or if the patient

be of a weak, irritable or scorbutic habit, this remedy had better be postponed, until these conditions of the general system contra-indicating its use, be removed by appropriate remedies — after this has been effected & the ordinary simple remedies have failed in checking the progress of the disease, a cautious mercurial course may safely be ventured upon. But if after the system has been affected by it, the general health should become worse & the disease progress more rapidly, or ulcers which were before of a comparatively mild character should assume a phagedenic or sloughing form, there will be great reason to believe, that some unfavorable state of the constitution, or of the affected part which has not yet been noticed exists, counteracting the salutary influence of the medicine, & the mercury should therefore be immediately discontinued & the treatment directed to the improvement of the general health. If the treatment of Syphilis be conducted in this cautious way, it will probably be found that although mercury is not absolutely necessary for the cure of the various diseases usually regarded as venereal, it generally abridges their course very materially & therefore the propriety of its use in moderation & not in such quantities as to produce excessive salivation, becomes unquestionable.

Some difference of opinion prevails as to the preparations of mercury preferable in the treatment of Syphilis. Those which are the simplest, are generally considered the best, because they act with less violence to the constitution & therefore are more efficacious in curing the disease. In recent cases perhaps Blue Pill is more frequently employed than any other preparation — but in old cases the Proto-

Iodid: the Deuto-Iodid: or the Muriate of Mercury is most commonly used in doses of ¼ to ½ th of a grain thrice daily. No precise rules can be laid down with regard to the extent to which the mercurial action should be carried — nevertheless it seldom becomes necessary to induce full Ptyalism — a moderate & equable action being commonly sufficient to procure all the advantages that can be derived from this remedy.

Sarsaparilla. Guaiacum & other anti-syphilitic woods are highly valuable remedies in the treatment of Syphilis & in conjunction with sudorifics, aperients, & an unirritating diet frequently remove the lighter forms of the disease, without the aid of mercury. But they can seldom be relied upon alone for the cure of the Venereal Disease, though they can hardly be omitted in connection with other remedies.

Nitric Acid has also been used a long time in the treatment of Syphilis & although Surgeons generally have not found it to be as efficacious as it was first represented to be, yet it is commonly acknowledged to have considerable influence over the primary as well as the secondary form of this disease. It may be given in doses of from 10 to 20 drops three times a day, in Decoction of Sarsaparilla or water.

Among the most important remedies recently introduced for the cure of the venereal disease, are the Iodides of Mercury, Arsenic & Potassium. The advantage which the Iodid of Mercury possesses over the Bichlorid is due to the Iodine which enters into its composition & which renders it peculiarly eligible in Scrofulous habits. Arsenic has long been celebrated for the powerful effect which it has upon nodes & cutaneous eruptions. It is also a valuable medicine in the rheumatic

pains which are apt to succeed Syphilis, or ill-managed mercurial courses. In these cases Fowlers Solution has been much generally used, but in Scrofulous cases it is far inferior to the Iodid of Arsenic. The Iodid of Potassium is also particularly serviceable in Secondary Rheumatism. Its power in this respect is perhaps not exceeded by that of any other remedy. It is frequently used likewise with much advantage in venereal eruptions & various scrofulous affections succeeding the venereal disease.

In obstinate cases of Syphilitic Sore throat, a solution of the Deut: Iodid: Hyd in Honey, in the proportion of 10 grs to the ʒj + applied with a camels hair pencil to the ulcer, has succeeded in effecting a cure when almost every other remedy has failed.

The Black or Yellow Mercurial washes, or some mild stimulating ointment as the Ung: Hyd: Nit: diluted, or Ung: Hyd: Oxi: Rub: generally answer a very good purpose as local applications to the chronic & foul ulcers which occasionally occur upon different parts of the body.

III.

Amaurosis.
A General review
of
its Causes, Symptoms,
and
Treatment.

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Amaurosis is a diminution or deprivation of vision caused by a greater or less want of sensation in one or more of the tissues composing the optic apparatus.

Remembering how intimate and yet how delicate are the relations of its several parts - of the retina to the optic nerve, from which this filament of extreme tenuity is formed - its many other nervous, vascular, and membranous communications and its consequent liability to various morbid changes the difficulty of fixing upon the special lesion and its exact seat is at once obvious. The retina itself may be unable to receive correct impressions, or this not at fault the Sensorium may not appreciate those conveyed by the optic nerve, or again the optic nerve may be incapable of conveying to a sound Sensorium the impressions made upon a healthy retina.

But it is not our purpose nor is it in our power to traverse the wide field of Enquiry embraced by this subject or to attempt to unravel the diversified series of phenomena it presents. We would only take a superficial and general view of some of its causes, its symptoms and treatment. The subject is surrounded with difficulties and requires minute and careful investigation. Each case of Amaurosis is itself a study and to do it justice would require to be considered at leisure.

The causes of Amaurosis are numerous - they are local, acting mechanically as a tumor pressing upon the optic nerve - extravasations within the cranium or in the coats

of the optic nerve - thickening or other change in the membranes or in the humors as a consequence of Syphilis more particularly - Other local causes are of a different nature, as injuries or irritation of the nerve itself - a plethoric or congested state of the blood vessels of the head or eye as occurs in those of a full and corpulent habit of body - other causes still are of a constitutional nature - Exhaustion, produced by a profuse or continued loss of any of the fluids of the body, as hemorrhage, prolonged suckling, neglected leucorrhoea, chronic diarrhoea &c — Among other manifold causes are enumerated, over exertion of the eyes, exposure of them to intense light, blows upon the eye or head, forced exertions of the mind and body, excess of the passions rage and grief - gastric and intestinal irritation, intemperance in diet and drink and the use of some of the acrid narcotics - it sometimes occurs during the pregnant and puerperal state - is owing to suppressed discharges whether natural or morbid - Those who have suffered in early childhood from strumous opthalmia are said to be liable to this disease - Lastly it occurs during the progress and as a sequel of other diseases and it is also considered as hereditary - Generally there is a combination of causes which have been acting for a length of time upon the individual and it is this complication which renders it difficult to discriminate and fix upon a proper course of medication - From the above enumeration of causes it will be seen that this disease depends upon many diverse states - that it may arise in consequence of some

structural change or derangement in the organs of vision proper or from constitutional causes we may consider it as sympathetic with other disturbances of the system, although upon high authority we are assured that Amaurosis as a functional disease never exists, but that it always depends "upon some organic change in the optic apparatus." No one certainly will insist that in all cases there may not be a morbid predisposition to the disease in the organs of vision, but the fact that the first link of the diseased action is not in the eye itself should not exclude a functional species. Amaurosis is attributed to such a multitude of causes apparently directly opposite in nature that some systematic arrangement becomes absolutely necessary. The division obviously proper and for all practical purposes sufficient is into Organic and Functional — under the former being arranged all causes of a local and under the latter those of a Constitutional nature.
We are aware that all the causes may not seem readily adapted to this arrangement and the distinction may be thought too loose, but to particularize would require repetition and the time cannot well be spared.

The Symptoms of Amaurosis are numerous and as in other diseases variable and not all present in each individual case. The cause producing the disease modifies them and they present different aspects according to its stage of advancement. In some instances there is no gradual accession of symptoms, but there occurs a sudden and total

obliteration of vision which may be as suddenly and completely restored or the loss of it may continue - but in by far the greater number of cases its advance is gradual and insidious giving but slight warning of the gloom which is gradually but too surely it is to be feared stealing upon its unfortunate victim -

It should be remarked "en passant" perhaps that Amaurosis is liable to be mistaken for incipient Cataract - They have symptoms in common and the diagnosis therefore must be critical or the worst consequences may ensue to the patient - In Cataract the difficulty of seeing increases slowly than in Amaurosis and the opacity generally commences in the centre of the lens, so that the sight is only dimmed when the patient looks straight forward, which in Amaurosis is not uniformly, though sometimes the case - When insensibility of the retina causes Amaurosis the stronger the light and the more brilliantly illuminated an object is, the more distinctly can it be seen, but in Cataract this circumstance causing contraction of the pupils, the rays of light necessarily pass through the most opaque portion of the cornea - When the disease is fully developed the two can hardly be confounded - From Glaucoma as a primary disease it can in general be readily distinguished though in some cases particularly in patients advanced in life the former usually

attends Amaurosis — Symptoms of Amaurosis

The first notice of the approach of this affection is usually a slight indistinctness of vision seemingly caused by the lodgment of some foreign substance on the cornea which the patient with a wink of the eye or with his hand attempts to remove — At first these attacks are but momentary and disappearing perhaps with his effort to remove the (supposed) cause; they are no more thought of until their increased frequency or longer continuance calls the patients more particular attention — In these (still) temporary attacks the failure of sight is such as would be caused by a film spread over the organ or a peculiar atmosphere seems to envelope the person, obscurity prevailing as in a mist — In some cases this indistinctness is constant and increasing, and in some becoming after use of the eye upon minute or luminous objects — But the imperfection varies both in form and degree — Those engaged in occupations requiring precision of sight find themselves baffled in their pursuit — minute objects can no longer be seen and delicate lines can no longer be defined — the effort to see produces a misty light and disappoints the attempt. To a reader the letters of a book appear indistinct, have a zig-zag course and run into each other — He may be able to read with ease a few lines and maybe pages, when he begins to lose them and then a word, confusion prevails and he is obliged to desist — This ob-

scurity does not always cover the whole field of vision — half may be in shade and half in seen" — part of an object may be distinctly seen whilst the rest is involved in darkness — An object may seem double, or may be seen perfectly in one direction and be invisible in another — To some patients things appear irregular, disfigured, and distorted in shape.

Accompanying or succeeding the above symptoms are the various false impressions to which most Amaurotic patients are subject — the appearance in their field of vision of spectra and the nondescript bodies termed, muscae volitantes — A single one may exist in the form of a dark spot in the centre of an object or they may be numerous and linked together appearing like a cloud or net work, forming an almost impenetrable veil to the beholder — With the degree of light their color changes — there are "white spirits and black, red spirits and gray", with forms as changing and shapes as fleeting as the figures in a kaleidoscope — Some patients see flashes of light, lucid globules, transparent vessels and numerous other objects which in their descriptions find many analogies in nature — thus one patient sees in these distressing attendants upon the disease the wings of an insect, another portions of soot and another the bodies of spiders — They may be fixed or move with the changing motions of the eye, ascending or descending in a shower — Or when the eye is at rest, bodies resembling in some cases luminous hairs are seen coursing in a tortuous man-

ner in correspondence with the motion of blood through the minute vessels— Every object looked at may not afford these appearances— With some they occupy the air, a wall, the fence — with some they are thickly strewn upon the ground and the patient seems to be walking in them — When looking upon any object near him the patient may be free from these illusions but when his glance is at a distant object — 'tis but a glance for his view is immediately obscured by them —

In some Amaurotic subjects the retina is exceedingly sensitive to light and exposure to it gives great uneasiness— Sometimes an unnatural degree of insensibility accompanies, the patient seeking the brightest glare of the sun or candle— Objects which in a dim light would be invisible can be seen when it is strong, at least in its outline or like a dark colored body upon a brightly illuminated screen when interposed between the patient and the sunlight —

As a last though by no means the least important one of this class of symptoms which we shall mention — in this disease we generally find patients complaining of pain, which may be either constant or occurring at intervals — Its seat and character too varies — it may be greater during the night or by day — may be less severe when the patient is sitting than when recumbent — various states of the body may aggravate it, as constipation exercise of eye and the diet of the patient — Some nervous symptoms accompany the pain, all of which circum

stances should be carefully enquired into when investigating a case of Amaurosis —

Accompanying the above described state of depraved vision we might rationally expect to find corresponding changes in the appearance of the organs in which such derangement occurs — We do not refer to those pathological conditions revealed by an autopsy, but to the alteration which takes place as the disease advances in their appearance, texture form and color — It is to this class of Symptoms, of which he alone is cognisant, that the physician looks for strengthening a diagnosis formed from the patients own account of himself —

There is in the eye of an Amaurotic patient a marked and peculiar expression if such it can be called — perhaps it were better said that there is an absence of all expression — but the unmeaning stare and vacant look is highly characteristic — The patients attitude is one of uncertainty and being no longer able to judge with accuracy of the relative distances of objects he walks with an almost trembling gait and cowering look, as if in a maze. In consequence of the insensibility of the retina there may be a want of convergence in the optical axes, in some cases strabismus or an oscillatory motion of the eyes or there may be an entire fixedness of them in their orbits — From a diseased state of the nerves supplying the lids the action of their muscles may be paralysed or

impaired — The state of the pupil varies greatly in this disease In the commencement its motions can usually be accomplished, but in a sluggish manner — When advanced and the sensibility of the retina is lost a widely dilated pupil generally attends, but in either stage it may remain half dilated or unnaturally contracted — No definite account can be given of its state for when total blindness exists their motions may be normal and their varying diameters the same as in health — Although much has been said and written upon this part of the subject, the sometimes extraordinary condition of the pupils in this disease has never been satisfactorily accounted for — The eyes may differ in their degree of prominence (in projecting more than the other) they may lose their natural sphericity one or both being as it were flattened upon its sides — To the touch the coats of the eye may be softer or firmer than in a healthy state — Vascular vessels may be seen ramifying over them and dingy colored spots here and there occupying their surfaces — The humors of the eye are sometimes changed having a glaucomatous or other appearance — The eyes of an Amaurotic patient should be critically examined with reference to its different states — it is well to examine them with varying degrees of light and separately —

The Treatment will of course depend upon the condition of the patient at the time and the stage of the disease —

The exciting cause and the associated constitutional disorders will also modify it—

When there is present inflammation of any of the tissues or when the disease is attended with all the signs of cerebral congestion, as headache, vertigo, tinnitus aurium, flushed face and sometimes painful throbbing of the temporal and carotid arteries—when there is a sense of fulness in the eyeball with a sensation of flashes of light, sleeplessness and an increasing loss of sight and when, as is generally the case when these symptoms are present, the patient is robust and plethoric, depletion should be employed proportioned to the peculiarity and intensity of the disease. There are some cases where in consequence of a loss of tone in the vessels of the eye undue determination of blood exists abstraction of blood would only aggravate the evil. These cases must be carefully discriminated from those which require it— Blood may be taken from the arm the temporal artery or jugular vein. Circumstances must regulate the quantity— Even if the disease has existed for weeks, depletion should in some cases be practised, if it has not before been resorted to— In addition to the general depleting means, cups and leeches to head and temples are necessary— This course with purging and a restricted diet and the avoidance of all irritating causes affords strong hopes of relief—

The most important remedy in this disease is the

exhibition of Mercury which Enjoys a high reputation—
In the various inflammatory affections of the eye this article is invaluable preventing and suspending as it does the effusion of Coagulable lymph which causes such destruction in this organ— Amaurosis, it has subdued and cured in a most decided manner— Its undoubted corbefacient action renders it probable that extravasations within the cranium and even morbid enlargements have been removed under its influence— For the same purpose when effusing Cause this disease or there is a thickening of the membranes in consequence of Syphilis, the Iodine in its various forms may be employed, the Hydriodate of Mercury and Potash being most serviceable— In some states of the constitution it may be improper to carry the Calomel to the Salivating point, although this effect in many cases can be this only cure— Dr. Copland recommends in Cases where from the state of the constitution Mercury cannot safely be used the Oleum Terebinthinae and says that he has used it with Complete success—

Emetics, have been used with doubtful success—
When however the Stomach is loaded with indigested food and the symptoms of gastric derangement are prominent, with a foul tongue, bitter taste in the mouth and headache, when vision is obscured by the floating Muscae and the pupil is dilated, there can be little hesitation about the propriety of their use— But unless

these symptoms or those of biliary derangement are unequivocally present little benefit can be anticipated from their employment - A judicious administration of Blue Pill combined with other Alteratives and Tonics has been found to answer all the ends in view under the Emetic system -

When as is no unusual thing this disease is complicated with the presence of worms in the Alimentary Canal, the various Anthelmintics are indicated as also are Emmenagogues when the Uterine organs are obstructed in the due performance of their function - the numerous other deranged states of the abdominal organs require the remedies appropriate to each -

In the cases already mentioned as depending upon Exhaustion and those of gastric derangement after the system has been prepared for their administration, Tonics are proper - of this class of remedies the preparations of Bark and Iron have been found most efficacious - Most of the vegetable and mineral Tonics are used, Columbo, Gentian, the mineral acids, steel and arsenic - Sometimes Tonics, a generous diet, moderate exercise in the open air and the cold bath will effect a cure -

Narcotics with a view both to their stimulant and sedative operation have been employed - Opium, alone or combined - Camphor, Strychnine, arnica montana

thus sedatives and topicodendron, phosphorus, hellebore and belladonna - Some of these from the convulsive action they produce have been used with an idea to rouse into action the benumbed sensibility of the nerves - but injudiciously as is thought by Mackenzie -
There are complications of Amaurosis which require the use of Antispasmodics, Musk, Valerian & Assafoetida.

The Local Treatment - embraces a great variety of applications and Counter irritants - Blisters are often required after depletion to assist in the cure - they are used as irritants only, or as a permanent places of discharge - They may require to be frequently repeated and are applied over the superciliary ridge, upon the temple, the neck or behind the ears - The tartar Emetic ointment, the moxa, issues, setons and the actual Cautery - Mild frictions and Stimulating Liniments have been found useful - When there are signs of atony in the organ, Stimulating vapors as of Ammonia and Sulphuric Ether - the vapors of Camphor & Acetic Acid - In an opposite state of the organs, the application of cold water by sponging or pouring a stream of it upon the head are means which should not be neglected -
If the disease depends upon the suppression of any of the natural or habitual discharges, as of the menses, hemorrhoids, or eruptions, the healing up of ulcerate, the propriety of using the appropriate local means needs -

easy to restore them will be obvious — In some cases of Amaurosis there is an unnatural dryness of the eyes and nasal passages — When the secretions of the Lachrymal gland and schneiderian membrane are restored much benefit is obtained — With a view to accomplish this, Sternutatories are employed — they may not only prove useful by restoring the natural secretion of the parts but by the strong revulsive impression the act of sneezing makes upon the nerves — In Amaurosis arising from injury of the frontal nerve and other branches of the fifth pair, division of the affected nerve has been repeatedly tried, but without success Electricity was formerly considered valuable in a therapeutic point of view, but is now discarded — A variety of Baths have been used in some forms of this disease as Chlorine, Iodine and the Sulphureous and the warm and salt water baths &c —

As matters which will influence the treatment of this disease, the general appearance of the patient should be observed — his constitution whether he be of a strumous death ess or not — his previous diseases should be enquired into — whether he is of a strumous hereditarily predisposed — whether his habits have been of indolence or activity — whether he has revelled in all the excesses of the table and wine cup-

In short the patients history should be made a matter of study as great assistance may be thereby afforded in determining upon the course to be pursued in the individual case and from it we may determine the exciting cause by the future avoidance of which the cure may be promoted — The removal of all hurtful causes does much towards hastening a cure, as does the continuance of them frustrate the end of all treatment and hasten a confirmed Amaurosis —.—

Eli Whitney Blake
1842

IV.

Dissertation on the Importance of Properly Investigating, Discriminating, & Judging in the Practice of Medicine

by
Horace Burr
of
Haddam Con—

Candidate for the Degree of
Doctor of Medicine— Jan— 1842—

On the Importance of
Properly
Investigating, Discriminating, & Judging
in the Practice of Medicine-

It is of great importance to investigate closely & carefully, discriminate nicely, & accurately, & judge correctly, in everything pertaining to the practice of the healing art; & upon our ability & faithfulness in the exercise of these qualities our success will mainly depend

It is impossible for me to do justice to this subject in these few lines, & I shall only touch upon a few of the most important particulars-

In the first place as regards the prevailing general diathesis- This is not only to be observed during the prevalence of a well marked epidemic, but where there is none as every season, & every locality, is mark

ed by some peculiarity of diathesis, which requires, tolerates, or forbids certain remedies & modes of treatment—

Thus one epidemic, season, or locality, may require generally the antiphlogistic plan of treatment; another the reverse; another neither, but a simple alterative plan—

In one, purgatives are among the most appropriate & useful remedies: in another there is a universal intolerance of them—

In one, the stomach will receive, & retain anything that the physician may think it to prescribe: in another there is universally a great degree of morbid irritability & irritation, & the utmost care is necessary that the patient be not prostrated, & exhausted by continual nausea, & vomiting—In one cold applications are useful: in another stimulating & irritant frictions are required ——

Thus I might specify general peculiarities, variously combined & modified almost innumerable——

Secondly with regard to constitutional

peculiarities; as seen in the family of the patient, & to be found in his own person; such as temperment, habit, susceptibility to medicines generally, & to particular agents.

This part of our duty is important in every point of view; but especially in regard to the administration of medicinal agents. A patient peculiarly susceptible to the operation of cathartics may be dangerously purged with what will operate mildly on one of common susceptibility, & hardly at all on a very insusceptible subject. Antiphlogistic measures, carried to an extent that will prove salutary on some constitutions, will fall short in others, while in other still they would prove fatal. A blister of ordinary strength will on the skin of some persons cause violent inflamation & sloughing. One sixteenth of a gr of opium is as efficient a dose for some persons, as two grs for others &c

I do not pretend to say that in all cases we can come at the exact susceptibility &c of the patient: but careful obser

and inquiry, will direct us aright, in case, where, if they be neglected we shall run into troublesome, dangerous, & perhaps fatal errors - The effects of neglecting our duty on this point, are, on the one hand the patient is tormented, the disease aggravated, or the life destroyed - on the other the time for action is lost, & the disease progresses unchecked, until it is too late for the remedies to produce their best effect, or, to be administered at all, & the disease lengthened, or life destroyed in consequence

Thirdly with regard to the particular symptoms of the case, which, together with the heretofore mentioned circumstances, determine the nature of the disease; the state of the system, as to general strength or debility, the state of the functions generally, & of particular functions -

The following are some of the errors into which physicians are liable to fall on this point, as well as on the preceding -

A practice of hardly examining at all

but prescribing at sight as it were —
Investigating so cursorily & carelessly, as to mistake the real nature of the symptoms, & consequently be incapable of drawing just conclusions — Not estimating them correctly; attaching great importance to those of little consequence, & perhaps entirely incidental, & neglecting those of the greatest moment — Examining with a mind prejudiced in favor of, or against, some, [illegible] theory, notion, or practice &c &c —
It is difficult to say which of these errors is the most pernicious; certain it is that they should all be shuned, as pregnant with guilt to the practitioner, & danger & death, to the patient — Every circumstance & symptom of the case; the state of every function of the body, should be carefully investigated & observed in all cases, whether acute, or chronic & that not once or twice, but continually through the whole course of treatment
Having by a careful, judicious, & discrim-

inating investigation obtained the data by which a reasonable & proper plan of treatment may be determined on; a discriminating & unprejudiced judgment is indispensibly necessary to form that plan; as one misstep at the first setting out may do more harm than all after treatment can do good; may render fruitless every attempt to heal the disease, or be of itself the immediate or remote cause of the death of the patient

After the plan is adopted the proper remedies selected, & the appropriate doses decided on &c, it is equally necessary to be vigilant, careful, & judicious; as there is no efficient plan of treatment, nor any active remedy, that is not in most cases capable of doing more harm than good on the one hand; or liable to fail of any beneficial effects on the other; if not watched & regulated according to the symptoms that arise, & the effects which it produces—

No one can predicate that any plan

of treatment or any remedy, will certainly perform all that he wishes or expects on the one hand; or on the other, that it will not produce effects that he does not want; & he must be peculiarly fortunate who can hit upon any course, that will not require many modifications —

The medical art is not a mathematical one, our results & conclusions however carefully & judiciously arrived at, are often at best but mere approximations to truth, & liable to error on every side

From the inscrutible & mysterious nature of the vital operations both in health & disease, & the agents by which affect them it cannot be otherwise — Notwithstanding all our physiological, pathological & therapeutical knowledge; our practice must be, to a certain extent, an everchanging series of experiments; & consequently must be, without the exercise of the faculties under consideration, more or less useless, uncertain & dan-

In many cases we may obtain more satisfactory, unequivocal, & important knowledge of the nature of the case, from the operation of remedies, than from any other source —

In some cases medicines are found to be inappropriate although from principle and analogy they were thought to be unequivocally indicated —

Sometimes medicines do not operate kindly & beneficially though unquestionably indicated & proper in the case, on account of being given in inappropriate doses; being improperly combined, or some other incidental circumstance: in which cases if they be hastily withdrawn, without due examination, & consideration, the benefit of a useful, & perhaps indispensible agent is unnecessarily lost —

The careless practitioner is also very liable to ascribe powers to remedies that do not belong to them, & effects that are

those of some other agent, or of nature alone; & often thinks himself remarkably judicious & skilful; when the truth is, that the patient has recovered in spite of him—

It is evident therefore that no attainments in medicine as a science, however high, will be of any avail in the practice of it as an art, without carefully investigating, discriminating, & judging, in all things connected with it; & that the man who neglects to do so, is but an enemy in the disguise of a friend & benefactor—

V.

Dissertation on Uterine Hemorrhage.

By
Otis Cooper,
of North Kingston, Rhode Island,
Candidate for the Degree of Doctor in Medicine.

Mr President and Gentlemen of the board.

Having endeavored according to the best of my abilities, to perform the obligations imposed upon me, in comon with other Medical Students; I now, at the close of the prescribed term present myself before you, as a candidate for a degree in medicine. In reviewing my term of Study with reference to this event; and comparing the amount of knowledge I have been able to acquire, with the vast amount that is unknown; I almost shrank from presenting myself before you; and much more from taking upon me, the high responsibillity of a practitioner in medicine. But upon reflecting that the most renowned in the Science of Medicine, were once, as perhaps ignorant as myself; and farther that years of Study without practice would not make a man, at once, a Skillful and Successful practitioner; I was encouraged to proceed. Feeling, however, that instead of having finished a Medical Education; I had in fact but just commenced one; simply laid the foundation; learned the general principles; that at the bed side these principles must be brought into action and compared with the facts of the case; again these carried to the private office and recompared. In Short if I shall be so fortunate, as deservedly, to gain reputation as a Successful practitioner it will be by such a course. As the Science of Medicine like all others is progressive, It is not only for the Interest of the Medical Man to pursue a course of unwearied Study at the bedside and from books; But it is a Solemn duty, he owes to the public, to his profession, to Him in whose hands are the destinies of all. By pursueing such a course, humbly trusting in his blessing who is able to use the weakest Instrument; to accomplish the greatest purposes; I shall only hope to succeed. But lest I weary your patience, by a longer preface, I will proceed to the subject of my thesis.

Uterine Hemorage. This accident or disease is important, always alarming, and not unfrequently dangerous. Perhaps in the whole catalogue of diseases, there is no one that causes more alarm to patient and friends, and no one if unsuccessfully treated, that will have a more detr[illegible] influence in metal upon the reputation of the young practitioner than the one before us. This disease may occur at any period of Utero gestation. In order to understand this disease and its causes, it will be necessary briefly to point out the anatomical relations of the Ovum and its product with the Uterus. The Ovum soon after its deposition in the cavity of the uterus, becomes attached throughout its whole extent to the internal surface of that Organ. Both the uterus and the ovum contribute to this end. On the part of the Uterus we have the Decidua, on that of the Ovum its external Membrane the Chorion. These membranes shoot out innumerable vascular fibres which inosculate with each other. Thus forming a firm bond of union between the Ovum and Womb, and later as pregnancy has advanced, between the placenta and that Organ. These inosculating vessels increase in size, and probably in number as pregnancy advances, until they reach their Maximum at the end of Utero gestation. The proximate Cause of this disease is in all cases a separation of the ovum or placenta from its connexion with the uterus. This connexion being entirely vascular, it follows of course that a separation cannot take place without hemorage, and also that the amount of blood lost, will (other things being equal) be in proportion to the advancement of Pregnancy. Exciting causes. The exciting causes of this Disease before delivery are, Mechanical violence, General plethora, Excessive Nuptial Indulgence, Diseases of the Membranes. or anything capable of breaking up the adhesions of the Ovum with the uterus. After delivery hemorage may be negatively produced by uterine inertia

unequal contraction or Inversion of that organ. In all cases of Uterine Hemorrag occuring especially during the first two thirds of the period of pregnancy a question of vital interest arises, What is this. Will the cause which first caused the flooding extend to the Ovum or factus inducing the destruction of the germ or Abortion? So this question however strongly urged, No decisive answer can or should be given. For well attended cases are given; where the Embryo has been saved under the most unfavorable circumstances, and has been lost in circumstances the most favorable apparently. Fortunately the treatment for hemorrag does not contrayindicate the treatment for abortion. Although we cannot prognosticate with any degree of certainty as to the termination of the disease, and the only treatment is in general to be as though we expected to save the Ovum; yet there are cases (exceptions to this rule) where the Symptoms are sufficiently diagnostic of the loss of the Ovum, to demand of us treatment to effect this purpose. In noticing the Symptoms indicative of this event, I can not do better perhaps than to quote Dewees. Says this justly celebrated Author, "I may safely declare, when the Neck of the Uterus is so distended as to resemble in feel the extremity of an Egg, Abortion will sooner or later take place, however small the opening in the Os tincae may be. The reason given is that the Muscular fibres of the Uterus are thrown into complete action. This principle however is objected to by other authors who bring cases to prove, that the Uterus may be thrown into complete action, and yet the factus saved. Another train of Symptoms given by Dewees as pathognemonic of this event. There are agitation of the morning sickness. Diminution of the abdominal tumour; But above all the Mamae becoming painful, Areola distended

with milk secreted, and these soon followed by flaccid breasts. In both of these cases all attempts to save the Coum will be unavailing and our whole attention must be directed to the flooding."

Treatment. When called to treat a case of uterine hemorage occuring during the first Six Months of pregnancy, The indications are first to remove the exciting cause if known and still acts as such. Sec^d Obviate present urgent Symptoms. Thirdly to place the patient in a State of rest in a recumbent position. These are to be accomplished by venesection, if the State of the circulation demands it. Placing the Patient in a well ventilated apartment on a Mattress or Something equivalent to it; Engaging light clothing; few attendents one or two better than more; perfect quiet, both of mind and body. For many cases this treatment will be sufficient. In a more Severe case in addition to the above treatment, Cold local applications to the vulva and over the uterus; Acetate of lead with a pium; Injections of Laudanum and and Starch; In this and all cases of this disease, the most perfect quiet must not only be advised but absolutely insisted upon. Unless this is obtained treatment will be of little avail. In addition to the form of the disease already described, we have another occuring more frequently perhaps between the third and Sixth Month. In this form in addition to the hemorage we find Symptoms of abortion present. Here the indications are obvious. The incipient disposition of the Uterus to contract is to be overcome (if Possible) To accomplish this acetate lead with Opii Should be freely administered both by the Mouth and by Enema. If the hemorage is not verey Severe; a piece of alum Should be introduced to the vagina. The object is to form a Solid Nucleus around which the blood may be coagulated;

and retained, and not by mechanically closing the vagina, to prevent the flow on the principle of the plug. Hence, the alum should not be large, and when introduced it should not be placed in contact with the os Uteri, as this would have a tendency to cause contraction, which our present purpose is to prevent or overcome. If however the hemorrage is severe, we must choose the least of two evils and introduce a tampon firmly against the os uteri, filling entirely the vagina and retaining with a T bandage. For this purpose fine Sponge wrung in a solution of alum is better than all others. In the absence of this other substances of course may be used. By this means the hemorrage will be restrained, and if we find the tendency to contraction becoming less, By continuing our remedies according to the indications we may have the womb, Should the pains instead of being diminished increase in frequency, becoming more regular and gradually assuming the character of natural labor pains, the tampon should be removed, the state of the os uteri be carefully examined. If this is found considerably dilated with the symptoms of abortion present and dilating, the membranes should be punctured, and the delivery hastened by giving Ergot. Or if the strength of the patient is not exhausted, allow it to be completed by the Natural efforts of the womb. Unless the contractions are strong the Ergot should be given; by so doing we shall obviate to a certain extent one disagreeable accident which sometimes occurs, when delivery is left to Nature (i.e) the retention of a part of the Membranes, which if retained will prevent the full contraction of the womb, and thus keep up the hemorrage. If notwithstanding all our treatment a part of the membranes or placenta is retained they must be removed either by the hand, wire crotchet or some convenient instrument. Use recommending the Spermodia Clavis. The Tampon or any

other remedy, I will here state once for all, I do not recommend their use at all, because the name of the disease is Uterine hemorage; any more than I would give stimulants, because a disease was called Typhus Fever, or the preparations of Peruvian bark because the disease happened to be arranged as an Intermittent. But suppose in every case, there are particular symptoms present, requiring the use of the particular remedy recommended; and this, without any regard to the Nosological arrangment in which the disease happened tho' with propriety to be placed.

Thus far I have treated of Uterine hemorage occuring during the first two thirds of the period of Utero gestation. All the supposed cases were the result of accidental causes. These causes may produce floding the remaining third of pregnancy. In which case the treatment must be conducted on the same principles as those already laid down. I only make this additional remark, that hemorage at this period will be more severe and the danger to the patient greatly increased hence, the Accoucher should be more prompt in the use of appropriate remedies. carefully watch his patient, and remain by her until she is placed beyond the reach of any danger in his power to obviate. I shall now direct my attention to another species of hemorag, which, from the mal presentation of the placenta renders the female unavoidably exposed to sudden and dangerous discharges of blood, at any moment, in any place, and without the slightest premonition, during the remainder of pregnancy. and still farther rendering it absolutely certain, that at delivery whether premature or at the full time much blood will be lost. This species

will at once be recognized as one in which the placenta is situated over the neck of the womb. The question arises here, will not hemorage occur to a greater or less extent, after the seventh month, as the necessary consequence of this kind of presentation? I answer not necessarily. For the hemorage will depend upon the physiological enlargment of the placenta not keeping pace with the mechanical distention of the neck of the womb. It will be seen at once if these two processes go on together in unity the organic enlargement keeping pace with the mechanical distention, that hemorage will not necessarily occur before delivery. On the other hand should the mechanical distention, exceed the placental enlargment, there must be a separation of that viscus from the uterus, and hemorage to a greater or less extent be the unavoidable consequence. In addition to what has been said of mechanical distention as an exciting cause it is proper to state that hemorage may also be excited secondarily by all, or any of the exciting causes of the species of hemorage already described. I shall only treat of those which occur from the first named cause, as the treatment for that would be essentially the treatment for all the rest: or from any other cause. About the seventh month the patient looses a quantity of blood, this comes on suddenly without perhaps any premonition whatever. The flowing continuing an uncertain length of time, ceases: and the patient soon recovers entirely. She continues well for an uncertain period; say a week, is again suddenly seized with hemorage which will ordinarily be greater in quantity than the first. This also is made to cease, only to be again repeated, and re repeated until delivery puts an end to the unnatural process or the patient sinks from

excessive loss of blood. It is more than probable that in a majority of cases the latter would be the termination if left entirely to the natural efforts for a cure. This seems emphatically to be one of those, not very rare cases, where Nature ordinarily so powerful and perfect, is comparitively powerless, and Art, with his stern visage, steps in sets ~~Nature~~ Nature aside and rescues the unfortunate patient from almost certain destruction. Hemorrage from this cause may occur before the seventh month, but from the smallness of the Uterus before that period it would be difficult to determine with certainty whether it was from this or some of the accidental causes before enumerated; nor is it of much importance if we cannot, for the treatment already described would ordinarily be the only justifiable mode of suppressing the hemorage or producing abortion if that was required. ....

In some cases from reasons previously given, the patient escapes these anticipating discharges until near or at her full time, when the Uterus will suddenly be thrown into action and the patient be at once prostrated by the profuseness of the discharge. Dewees relates a case where a half gallon was lost without the least premonition. Ryan a similar quantity; the Learned professor of Obstetrics in this Institution cases equally sudden and alarming. These facts as well as the nature of the presentation, teach us, that a woman placed in a situation of this kind by a Lusus Naturae, is in constant and extreme danger, liable at any moment, in any place, and under any circumstances to a profuse and even a dangerous hemorrage. These cases also teach us that very much depends upon the Accoucheur. For from the history of these cases we know, that if judiciously treated

they are not often so. The treatment for this species of hemorrage resolves itself into two kinds, Palliative and curative. There is no Middle path. In all cases the palliative treatment, which aims of course to allay present Symptoms and carry the patient to her full time, should be thoroughly and faithfully tried. In doing this however let it not be forgotten that the patient is still in danger and will be so until delivered. hence the most perfect rest and quiet should be enjoined. the nature of the case made known to the patient and a judicious Nurse, with directions to be called at the first Symptom of discharge. This practice is recommended by all. But about the length of time it is to be followed or in other words, when it shall give place to the curative or delivery, there is much diversity of opinion among authors. I have neither time nor inclination to enter at all into the discussion of this question as, no practical advantage would result from it. But haggard the opinion that time, so far as hours or days are concerned can be no guide to practice in this or any other operations in Obstetrical practice. And further still, that no unexceptionable rule can be given even from the circumstances of the case. For perhaps No two patients or cases will be alike and the Accoucheur can only look to the particular Symptoms present in each case to guide him as to the time of delivering the patient. There are no cases in obstetric practice that require more skill prompt[illegible] perfect self possession and good judgement in the practitioner than these. On the accurate possessing these traits the life of the patient not unfrequently depends. Supposing it is decided to deliver, the State of the os uteri must be carefully but thoroughly examined. The exact State must be known. If upon making

this examination it is found but little dilatable, firm and unyielding or if it is considerably dilated yet short of that point where delivery can be accomplished without danger of laceration. The tampon, soaked in a saturated solution of alum must be introduced with the most accuracy. It should be firmly retained in place by the hands of the operator. The object here is to prevent any further waste of blood, which may ordinarily be done by the tampon. If it is properly applied, secondly to give the uterus time to dilate. After awaiting until from the change in the character of pains & perhaps pressure made upon the tampon during a pain, (for I suppose that in a majority of cases of this sort that of the os uteri there will be strength enough to make some pressure in this way) it is judged that there is sufficient dilatation to expect delivery, the tampon should be carefully removed, and the child turned and delivered forthwith. Should we find however upon removing the tampon, that there was not sufficient dilatation, of course it should be at once returned. Upon our first examination if instead of finding the os uteri firm and unyielding we find it dilated or dilatable, known by its soft feel and its yielding nature upon hooking a finger into it and making gentle traction, the hand should be introduced immediately and the child turned, the delivery finished either speedily or not according to symptoms in the particular case. In performing the operation of version the position of the patient is of much importance, yet from her exhausted state and the danger of increasing the discharge upon the slightest movement it is often unhealthy impractible to avail ourselves of that

which is most favorable. Where the position can be chosen. The back is recommended by the French as the preferable one, But some of the English and the American authors generally, either from superior delicacy or some other good reasons, recommend the left side. If the French mode is chosen, the patient should be placed with her hips upon the edge of the bed, which should be somewhat elevated, the hips and knees flexed and abducted, an assistant should support each lower extremity, the operator placed between these. If the side is chosen the process is in natural labor and requires no particular description. The object of position is, to select that, which will give the operator the greatest command of the cavity of the pelvis. The question next arises whether the hand shall be passed directly through the placenta, or passed by separating its side adhesions? Upon this subject much discrepancy prevails among authors. Some strongly recommending to perforate the placenta, others as firmly reprobating the practice. Without even glancing at the reasons, in favor of either mode, I would recommend that the hand should in all cases where it can be done be introduced by breaking up the adhesions of the placenta with the uterus. This should be done as gently as may be, after having passed into the cavity of the uterus near to its fundus, the membranes are to be ruptured. A small quantity of the water allowed to escape by pressing the arm to one side. The feet are then to be grasped by carrying the hand over the abdomen of the child. They are then brought down in the same direction (i.e.) over the abdomen of the child. We suppose the case is now comparatively simple

control. The arm acts as a plug to restrain the hemorrage, and the waters are allowed to flow only at our pleasure. The making traction upon the feet we should rather assist the natural efforts, these entirely supercede them. The ordinary cases the delivery should be allowed to proceed no faster than the uterus is made to contract. Should its contractile power be weak, the ergot should be administered in doses sufficient to insure the firm tonic contraction of the womb. After delivery, the placenta should be detached carefully if it remains adherent, and the same precautions in it's delivery as in delivering the child. viz Not to remove it until firm contraction of the uterus is induced. If there is much exhaustion, stimulants that are digestible in their nature should be given. A compress should now be placed over the mouth, and retained by a broad band drawn firmly around the body of the patient. Perfect quiet, light clothing & diet in irritating, should be enjoined. also that the uterus should be carefully watched to obviate any disposition to dilate and thus renew the hemorrage.

Hemorrage after delivery. This species of hemorrage arises from retained placenta or membranes. Inertia or unequal contractions of the uterus. Uterine inertia is produced by various causes, such as debility either local or general, over distention of the uterus &c A lax or phlegmatic habit is said to predispose to this state of parts. If the hemorrage is from retained placenta merely, the placenta should be removed with the hand or, some convenient instrument. When it is from the above complications with an inert state of the uterus, the hand should be introduced,

The adherent placenta detached but not removed, until firm contraction is induced, By Diffusible Stimulants if Exhaustion present. Ergot, friction of the uterus by moving the hand internally, and grasping the fundus externally. When the whole placenta is retained from an inert state of the uterus, it is recomended to inject that viscus ~~by~~ with cold water; from the known good effects of cold externally applied in producing uterine contraction I should think the remedy worthy of more attention than seems to have been paid to it. Would not an injection of strong solution of alum be preferable? Spasm or unequal contractions must be overcome by the steady introduction of the hand. This last with coagula, the improper use of the tampon etc. are the causes of the majority of the fatal cases of uterine hemorrhage. The fatality of this species of hemorrage is not from any inherent fatal power, But like the midnight assassin it strikes unseen. The patient is perhaps easily & safely delivered. She is, as it is termed safely put to bed. All are congratulating her upon her speedy delivery, and rejoicing together that ~~that~~ one addition has been made to the family. The tea things pass rapidly around, Amid the general glee the patient is for the moment forgotten. When attention is attracted to her she is asphixiated perhaps, the uterus is filled with blood. The asphixia may be either temporary or verging to a fatal kind if there has been much previous flooding. In which case the face is pale, lips bloodless. Pulse tremulous rapid and fluttering, the Extremities cold & clamy. respiration gasping, the powers of deglutition gone. These symptoms are essentially those of all the

extreme cases of uterine hemorage. And the treatment for this must suffice for all the others or from extreme hemorage from any other cause. Treating these cases the patient must not be moved in any direction. Strong counter irritants with Diffusible Stimuli must be freely resorted to. frictions by grasping the uterus externally. full doses of ergot if they can be administered. Cold to the region of the Uterus by means of a bladder or Cild Silk bag. and lastly transfusion. In pursuing this treatment every movement should be carefully watched; as soon as reaction takes place the Stimulating treatment should be decreased or suspended. After reaction has taken place and the uterus is brot to contract The treatment formerly recomended must be carefully and perseveringly pursued. Viz quiet light dress, free ventilation compress & bandage Cordial and tonic remedies A. Nutritious diet which is unirritating should be chosen, and gentle exercise in the open air.

Hemorage from Inverted uterus. The Uterus may be Partially or entirely inverted. Caused comonly by traction of the Umbilical Cord, the placenta being attached to the fundus of the uterus. It is said however to take place Spontaneously. This may be the case: but it is probable I think that the cord was somehow entangled with the child; So that during delivery the cord was pulled upon So Strongly as to produce this Accident. Whether the inversion is partial or complete the Indication at first is the same Viz to reduce it. In order to accomplish this the tumour should be grasped and pressure applied

steadily, and gradually increased. In short pressure should be made and the reduction effected, upon the same principles exactly as there for the reduction of Strangulated hernia, by taxis. When the inversion is partial and all means are ineffectual in its reduction: It is recommended to render the Inversion complete. I suppose this treatment is upon the same principle that the criminal convicted and sentenced to death has his Sentence changed to that of Solitary confinement and hard labor for life. If we succeed in reducing it the same treatment as has already been recommended for other Species of hemorrage must be followed and Wounds not to be manipulated.

Conclusion

My conclusion Gentlemen without at all intending it as any apology for either Skill or Sentiment but simply to state the fact; I will say: that in treating the Modifications of this disease though briefly; I have found it necessary in order to bring my dissertation within limits proper for this occasion, to condense the subject as much as possible. In so doing, I have sacrificed ability to ornament and chosen an abrupt Style with Multum in Parvo; to a more ornamental one, with Parvum in Multo. And, without further note or comment I respectfully submit my thesis for your consideration, asking only such clemency as the Nature of the case demands and such as in your wisdom you may see fit to give.

Respectfully Otis Cooper

VI.

Dissertation on Intermittent Fever.

By
Philo Nichols Curtis,
of Newtown, Connecticut,
Candidate for the Degree of Doctor in Medicine.

I propose to make some remarks on Intermittent Fever. It is a disease which on account of the frequency of its occurrence, and not unfrequently the obstinacy of its duration, demands a careful & attentive investigation by every physician in our country; but more particularly those of our Southern & Western States. In that section of the Southern States which borders on the Atlantic which is very appropriately termed 'The Low Lands' extending from one to two hundred miles from the coast, this disease prevails to a great extent during about four months in the year and may be truly said to be the scourge of the inhabitants.

Some years there is scarcely a white person escapes an attack of this disease for many miles in extent. The white population are more frequently the subjects of this as well as of every other disease peculiar to this section of country. Perhaps the history of no other disease has been marked with such an almost endless vari

city of appearances and results. At one time it has appeared in a malignant form, spreading alarm and consternation, making dreadful ravages proving fatal to vast numbers and then disappearing and nothing more is seen of it for years. At other times occurring in a comparatively mild form rarely proving fatal, but continuing at certain seasons of the year for a number of years successively and then disappearing untill perhaps after the lapse of half a century, when without any perceptable cause the unwelcome visitor again makes its appearence. In countries where this disease prevails to a considerable extent the appearance of the inhabitants generally is that of a sickly unhealthy country. This is the case to some extent at all seasons of the year, but more particularly during the summer and autumnal months in which this disease rages. The inhabitants may be known by a pale & sallow complexion a shrunken and flaccid cheek. the eye sunken & void and void of expression and peculiar a woe-

begone ~~xxxxxxxx~~ look ~~xxxxx~~ which that particularly distinguishes the inhabitants of those districts which as it is said are infected with malaria or miasm and which plainly informs the beholder that disease has usurped the place of health. I have been told by persons who have visited the legislative halls of the Southern States, that they could dastinguish to a man those who came from among the mountainous districts in the Western & Northern parts of the from those who came from the Low Lands on the coast.

The most prominent characteristic which distinguishes this form of fever from every other is its occurring in distinct paroxysms. For some time previous to an attack of this disease there are many premonitory symptoms or warnings by which one who has experienced them knows that his annual visitor which he so much dreads is at hand. For several days sometimes weeks and perhaps months preceding an attack the patient has general

feelings of indisposition. frequently pain
loss of appetite Languor Lassitude. con-
siderable prostration and wearines upon
any attempt at labor or exercise and
general feelings of debility, which upon
the occurrence of a storm an easterly
wind any sudden change of temperature
or any slight exciting cause, the disease
is ushered in by the cold stage or what
is popularly called the shaking ague

The first symptoms of its immediate
approach are sensations of Languor
long fits of yawning generally accompa-
nied with more or less head-ache with
obtuse pains in different parts of
the body as in the back loins &c
sometimes attended with stupor.

The paroxysm progressing the patient
has great sensations of cold, extrem
ities cold, streaks of cold running
down the back. If he is sitting up
although it may be a hot day in
midsummer he closes all the doors
gets near the fire and requests his
attendents to make more fire, or if
he is in bed he desires to cover

himself with as many bed clothes as can be procured. The sense of cold very soon becomes almost insupportable as is manifested by the violent chattering of the teeth and a universal tremor over the whole body. The respiration is always short hurried and laborious. sense of oppresion in the epigastrium more or less pain in the bowels. In almost all cases the patient is incapable of attending to any thing; he takes but little notice of what is passing around him, if he is spoken to by his attendents he answers them shortly and sometimes peevishly as though he wished not to be disturbed; the features are much shrunk and pale the lips and cheeks have a more or lefs cadaverous appearance. The pulse is small weak and frequent sometimes intermitting sometimes scarcely perceptable. It has been remarked as a curious circumstance that although the patient has feelings of intense cold, the temperature of the body is frequently above the natural

standard. Stupor coma and not un-
frequently delirium attend the cold
stage. After these symptoms have
continued for a longer or shorter
period varying from half an hour to
two or three hours a gradual change
takes place and then follows the hot
stage or what is vulgarly called the
burning ague; the skin becomes hot and
dry the face flushed and swolen. the
thirst intense, the tongue parched
the patient calls loudly for water
he drinks and drinks again and
yet his thirst is not satiated. There
are restlessnep great anxiety and gen-
eral uneasinep. the respiration is
hurried and laborious, the patient
more generally complains of acute
pain in some part of the head back
or loins, sometimes there is a slight
delirium, the pulse is generally fre-
quent, quick full and jerking. The
duration of this stage varies more
perhaps than the cold stage. It is
succeeded by the sweating stage
The change is gradual. there is

alleviation of all the symptoms, the difficulty of respiration is diminished gradually, it becomes less anxious and laborious, the pain in the head back and loins diminishes, perspiration appearing first on the forehead and becoming general and profuse all over the body. It was noticed by Andral that in persons who are hemiplgic the perspiration does not appear on the affected side. These are some of the more prominent symptoms to be noticed during a paroxysm of this disease. The length of time from the commencement of a paroxysm to its termination varies very much in different cases. Those which I have seen generally terminate in less than six hours. This disease frequently continues for a great length of time, but sometimes terminates with a few paroxysms. I have seen persons who have had a paroxysm every other day for one two & three years. When the disease continues for some time the patient becomes very weak and much ema

ciated. There is generally more or less ptyalism and the quantity of saliva discharged is sometime great. It is mentioned by one author that enlargement of the parotid gland takes place during the course of the disease. He says the gland increases in size and hardness during each cold fit and it seems in the first instance at least to owe its enlargement to sanguineous engorgement. He says subsequently the gland suppurates*. I have never noticed enlargement of this gland nor have I ever seen them suppurate. That they are considerably affected is evidently manifested by the great quantities of saliva discharged. After the disease has continued for some time there is generally free and profuse expectoration. Although there is considerable loss of muscular power and much debility yet the patient is generally able during the intervals of the paroxysms to sit up walk about the house &c but he is generally unable to attend to any bodily or mental labor. Any little exertions either

* Mackintosh

of body or mind increases the sufferings of the patient and frequently brings on a paroxysm before the accustomed hour. The severest form is the Decotidian in which the paroxysm ocurs every day. The shorter the interval the longer and more severe are the paroxysms, the longer the intervals the shorter and less severe are the paroxysms. If the patient does not obtain relief and his paroxysms continue with severity, he pass restless nights with night-mare, the feet and legs become edematous, the abdomen tumid and the body has a bloated appearance and perhaps he may die during the next cold stage, generally however it does not terminate fatally unless it changes into a remittent or continued fever or from continuing a long time it produces organic disease of some of the internal organs as the lungs, liver or spleen.

These last are diseases which are frequently produced by intermittent fever and which very often terminate fatally. Several authors have described the disease as it has occurred in many parts of Europe appearing as a maligment disease and making dreadful ravages. We are told that in 1593 it raged like the plague in London and was also very fatal. Alibert in his work on Malignant

Intermittents speaks of the disease as prevailing to a great extent in many parts of Europe proving fatal to a great number of inhabitants. He says at one time in the vicinity of Pithiviers it spread with alarming rapidity. In the space of a month it attacked one half of the inhabitants of the boroughs and villages situated on the river Essone. While the disease preserved the character of a simple intermittent the inhabitants were only struck with surprise at the number of persons attacked, but when it began to become mortal relief was solicited from all quarters. Never did a more afflicting spectacle spread a gloom over the mind. Every dwelling appeared to be converted into an hospital. The rapidity with which the Epidemic spread the unexpected deaths of a great number of old people, children heads of families and pregnant women spread great consternation and alarm throughout the city. He says these fevers were true intermittents; the most prevalent type was the tertian. He says in general these Epidemics had a strong tendency to rapid changes of their type and to become alternately remittents, common bilious, continued or malignant continued fevers. There is reason to think from his description of the disease which raged so

extensively that they were compound diseases. A combination of Intermittents with malignant typhus. Intermittent fever of the character which he discribes has seldom if ever appeared in this country unless we class Remittent or bilious remittent and Yellow Fever as a variety of Intermittent. Yellow Fever has been considered as a compound of Intermittent & Typhus. There may be no doubt a combination of causes and very probably there is a combination of diseases

Causes of Intermittents

We come next to speak of the causes of this disease, upon which much has been said and much has been written and upon which there is a great variety of conflicting opinions and statements. The almost immeasurable amount of facts which have been stated in proof of the opinions of authors which are entirely different manifest how little is known upon the subject. It was remarked by Dr Gregory that ninety nine in the hundred of medical facts are medical lies. the censure is somewhat splenetic; but even a superficial observer cannot but notice how many statements have been

published as facts upon which little reliance can be placed. The causes of this as well as every other endemic and epidemic disease may be divided into Predisposing Exciting and Proximate cause. Firstly the Predisposing cause or that cause which determines the specific nature and character of the disease and without the influence of which the disease cannot exist though incapable in itself of producing the disease. The views of authors in respect to the predisposing cause are numerous and diversified. Whatever this cause is, many authors agree that it is somehow or in some way connected with marshes morasses swamps stagnant pools of water & perhaps running water. What this connection is it is difficult if not impossible to explain. From the circumstance that it is connected with marshes morasses &c it is thought by many to be caused by the effluvia of dead or decomposing & putrid vegetable matter which is generally more or less arising from such places. No doubt the effluvia which arises from vegetable decomposition acts as a cause of Intermittent fever; but is it alone capable of producing the disease. It is not probable that

it acts only as an exciting cause and that it does not give the specific nature and character to Intermittent fever, nor to any other disease, but merely excites the disease into action where a predisposition exists.

We speak of effluvia arising from animal and vegetable decomposition as a cause of disease, but it is not the predisposing cause characterising the disease; but only an exciting cause and is capable to excite one disease into action as another

If the question is asked, what this predisposing cause or endemic influence is? we must answer, we know nothing of it except from its effects. Nothing satisfactory or conclusive has been proved on the subject. Dr. Macintosh says we know nothing whatever of this marsh miasm we merely assume the existence of such a substance and some have even ventured to give it sensible qualities as smell specific gravity. he says this is certainly going quite far enough into mystery & darkness

If this marsh miasm as it is called or endemic influence is a material substance why is it not detected by the chemist

As Prof Ives says why do they not get me a little of it and let us ascertain what its properties are if it has any. Dr Good & others say it is sometimes communicated by contagion. I once heard a physician of some celebrity say that it is no more contagious than long toenails are contagious with which remark I presume most physicians will concur

The Exciting causes are more obvious. Some of them are the following. They are transient perturbations and very considerable deficiences or irregularities too considerable to be tolerated in exercise & rest. Exposure to moist atmosphere & alternations of temperature. Exposure to vicissitudes and alternations of drought & moisture. Exposure to effluvia or exhalations from dead & decomposing & fermenting & putrefying vegetable matter. These are not Non Naturals. They are powers or agents operating as exciting causes exciting any disease into action where a predisposition exists; but they do not determine the specific nature and character of Intermittent Fever or any other disease.

It cannot be expected that I shall

say any thing in respect to the Proximate Cause as the theories and speculations of all great men who have endeavored to investigate this subject are neither satisfactory nor conclusive and only 'Lead to bewilder and dazzle to blind'.

Treatment. The number of articles recommended and used in treating this disease comprise a large portion of the Materia Medica; but as I have probably exhausted the patience of my auditors and as the treatment would be lengthy and tedious, I hope this will be considered a sufficient apology for this abrupt termination.

Philadelphia [illegible]

VII.

Dissertation
on
The injurious effects of modern dietetic principles, arising from the stimulating qualities of our diet.

By
William Mark Curtiss,
of Trumbull, Connecticut,
candidate for the Degree of Doctor in Medicine.

In offering a few remarks upon the subject which I propose to lay before you - I am fully sensible of my inability to do that justice to it which it demands - Can - dor compelling me to state - that the little knowledge I have of our Science at present is merely that of theoretical import. But more than this I am constrained to believe is not to be expected from one - who from the multiplicity of engagements devolving upon him during the short time allotted for his appropriated professional capacity - would consequently be debarred the privilege of acquiring that practical knowledge of our Science so necessary to a happy application of its theory." The subject which I propose to introduce to your notice is that of - "The injurious effects of modern dietetic principles arising from the stimulating qualities of our diet" & in treating of which I refer more particularly to the various Incitants incorporated with our food - rather than to the natural stimulus resulting from its quality." Various indeed are the diseases which owe their origin either directly or indirectly to the fashions & customs of modern times - the causes of which soon from their very prevalence seem rather to escape our observation - & I know among the others that one upon which I propose to offer a few remarks - although not strictly of modern origin will nevertheless be found to hold no subordinate rank." Man - it appears is by his peculiar structure

fitted for subsisting either on vegetable or animal food or both & this principle we see fully exemplified in savage life by his adapting his wants to the productions nature most bountifully supplies him with - we find him in one country subsisting altogether on fruits & nuts - in another the whale walrus & seal constitute his food - raw flesh is partaken of by one class of our species - & the same material is kept untill it is tainted & become putrescent to furnish the daily repast for another - while thousands are furnished with nutriment from farinaceous substances & roots alone - such then appears to be the diversity of material fitted by nature for mans subsistance - & of which her simple sons partake" But it is in civilized life where free scope is given to his passions & desires - that man has multiplied & refined upon the articles of his diet untill there is left but few articles whereby he can satisfy the cravings of his stomach with perfect impunity" The inventions of cooking - combining - spicing - & sasoning - have been introduced together with numerous articles of food & various condiments which are not only innutritious - but positively injurious to the healthy process of digestion - would it not be a strange supposition to suppose that nature ever designed that man should be under the necessity of resorting to the various condiments in use - in order that his food should be more particularly adapted to his con

-dition" Surely such a supposition would be unreasonable - that the noblest work of God should be thus peculiarly constituted - & that the inferior animals should enjoy this immutable privilege. No - we see nothing of the kind exemplified in the case - they (the lower orders) by simply following the dictates nature teaches them are subject to fewer diseases & oftener reach that extreme period of life allotted to each of their respective classes" Can any one pretend to say that the infant has a natural taste or relish for the multifarious compounds & host of petty stimulants so much in use at the present time - I think no one will answer in the affirmative - & if so - can we do otherwise than admit that their use is an innovation upon our natural wants & desires - & thus consequently an acquired appetite - subject to the same laws that actuate the inebriate to partake of his daily potations - or that gives such peculiar charms to those habit-uated to the use of tobacco & the various narcotics" If the natural & healthy functions of the digestive organs are properly per-formed from the stimulus which a plain & wholesome diet or injesta gives - is it not good evidence that the exciting effects which would result from the various stimulants inc-orporated with our food must be injurious - as tending to excite an action already sufficiently developed" So we not unfrequently see the consequences resulting from the too

Common practice of deviating from the simple & natural pab-
-ulum designed by nature for the infant by giving it food
unsuited to its condition - the innumerable dainties with
which it is crammed - its feeble powers of digestion have not suffi-
-cient strength or stamina to withstand & numerous diseas-
-ses as colics indigestion with emaciation debility & not unfr-
-equently complete marasmus is the consequence - Then
if this derivation from natures laws is productive of so many
evils - would it be unreasonable to suppose that to a certain
extent in the case of the adult - the practice of adhering to
what we have considered as an acquired appetite & an unna-
-tural excitability - would not in the end be equally produc-
-tive of bad effects - so it seems to me & in proof of which I would
refer you to the numerous cases of Dyspepsia so prevalent
among the higher classes of society to which they subjugate
themselves by their indolent & luxurious manner of living
& from which the poorer classes are so happily exempt - part-
-ly I am well aware from the active life their condition
renders it necessary they should pursue - but chiefly owing
I presume to the fact that the various condiments & super-
-fluities which constitute so large a share of the regimen
of the former is as a matter of necessity not compatible with
the circumstances of the latter - It is said by some that in

Dyspepsia animal food is more particularly applicable - as is argued from the fact that it is more easy of digestion than a vegetable diet - others on the contrary recommend a plain spare vegetable diet - one thing is certain however that animal food is more stimulating & hence may appear to give relief - Why is it that Capsicum given to a dyspeptic patient in numerous instances appears to be of advantage - is it not by virtue of its stimulating effects - by arousing the weakened & relaxed energies of the digestive organs that the more feeble condiments are incapable of doing that this temporary relief is manifested - I believe it is a fact admitted by most Physicians that the susceptibility of the system to the various classes of stimulants becomes more or less blunted by a too frequent or long continued use of them - & hence we see in the case of the dyspeptic why the more powerful condiment Capsicum appears to give relief & the stimulating qualities of an animal diet are by some considered as preferable. But according to the above view - does not the very fact of the exciting qualities of the different articles of diet & medicine add to the very evils we wish to avoid - we are under the necessity of resorting to more & more powerful stimulants in order that the process of digestion may go on - untill at last we are left without a resort - & all the evils attendant upon

an aggravated form of Dyspepsia is the consequence.
This principle is also exemplified in the case of the inebriate affected with Delirium tremens who from a long continued use of alcohol has rendered his system unsusceptable to its stimulating effects - that diminished state of nervous energy or in other words exhausted excitability which has been induced does not allow of the operation of stimulants which alone in the case can save him - Then if these are the effects & consequences of an over stimulation - certainly it is good evidence that a constant use of those articles of the same class of minor importance - must in the end be more or less of an injurious character & probably productive of no small share of disease & wretchedness - their effects upon the system so far as their stimulating powers are extent certainly has the same tendency to reduce that excitability of the nervous system so productive of both mental & corporeal imbecility. I believe that Physicians are generally agreed that in diseases of a low & typhoid character requiring stimulation those cases are more manageable which occur in patients who have been least addicted to the pleasures of the table & who have consequently not suffered the loss of that susceptability to those medicants which are alone applicable to the diseases in question. And is it

not more than likely that a rich & stimulating diet gives rise to an acquired predisposition to various diseases of a nervous character as apoplexy - Palsy - Epilepsy Mania & numerous others - A full habit florid countenance & strength of muscle which is a characteristic of the above is by most people regarded as sure marks of health - but these are more commonly induced at the expence of the vitality of the system from a rich or strong food or drink & consequently not a healthy state but one which is prepared to give way to the first attack of a violent disorder. The peculiar habit above mentioned which is found to be so productive of disease - the evidences of the epicures luxurious gratification is frequently supported - & those who have properally become the pioneers of a more temperate course are decryed against & made the subjects of light & trifling sarcasm - but after a few years perhaps months we find some one of these models of health suffering from a true hemiplegia or laboring under the dreadful visitation of an apoplectic stroke - they find when too late that their own cherished views have deceived them & that the bitter invective they so hastily plied upon others has at last returned upon - but in a manner which no longer elicits their trifling remarks - but a true sense of the conviction of their folly. It appears that Providence has given

to the human constitution a certain amount of power beyond what is necessary for keeping the machine in perfect health & this we can use according to our choice by applying stimuli to what may be called the excitability of the system - if we choose to concentrate this power in the digestive organs we can do so - but not without proportionably reducing the powers of the other organs & impeding their operations or if we choose to set the wheels of life in more rapid motion this too we can accomplish - but we must remember that by so doing we so much the sooner exhaust the fire of life.

In a few remarks by a celebrated Physician "he says" who can count the multitudes yearly consigned to the tomb by the indulgence of a fastidious & unnatural appetite headaches - Flatulences - Colics - Dyspepsies - Palsies - apoplexies - & death follow the Epicurean train as ravens follow the march of an armed host - to prey on those who fall in the battle of the warrior with their garments rolled in blood The truth of this statement will hardly be questioned by any one - yet we find few Physicians possessed of sufficient moral courage to raise their voice against this system of modern Cookery - but even the fewness of their number is indeed highly creditable to the profession - Especially when we consider that nothing can be

more injurious to their business than the general adoption of the very system of diet & regimen which most of them recommend — though as "Dr Cheyne says" they can have no reason to be alarmed on this point when the world the flesh & the devil are on the other side of the question & which have ever as yet stood their grounds against the rules of life & immortality. But as regards the point in question I think judging impartially there can be but little difference of opinion. It is true that those who lead an active & laborious life require an aliment of a more strengthening & solid nature than those who follow a more sedentary occupation & hence a greater proportion of animal food seems better suited to their wants. Good in treating of Dyspepsia speaking of the different kind of meats "says" the simpler the cookery of all these the better for the complicated processes employed to give new forms to the productions of nature injure instead of promoting the health (1st vol p 150). again it is no unreasonable supposition to suppose that in consequence of the unnatural excitation produced by the stimulating qualities of our diet we are thus led to overstep the boundaries as to quantity as well as quality & thus another evil springs into existance & one the effects of which upon the system is productive of equally injurious

remedy - It is the opinion of many Physicians that intemperance in diet destroys the health of mankind - or in other words that what is eaten & drank & thus taken into the habit is the original cause of by far the greatest number of diseases which afflicts the human race. & it is said to be notoriously true that but few cases of longevity are to be found who have not been the subjects of a temperate & rather abstemious diet. Numerous examples in proof of this assertion may be found in the lives of the Celebrated Galen - Thomas Parr - Lewis Cornaro - Dr Clayne & others - Dry Bread - Rice & Rusk also afford an additional example of temperance both in Eating & Drinking - An ancient says - mankind since the improvement of Cooking Eat about twice as much as nature requires - his maxim was - Eat not to fullness. Drink not to Elevation - Thus as water constitutes the most simple - natural & healthy diluent adapted to our wants so in regard to our food - that which is the most simple & easily assimilated to our Condition best subserves the purposes which nature demands. Simplicity then appears to be a rule which ought to be more generally observed by us - Finally - does not the testimony of the great & good not only of the present but of past ages seem to accord to the foregoing remarks - & entirely to militate against the

present principles of fashionable dieting — let us profit
then by the experience of others & avoid a course which though
slowly - yet not unfrequently too surely tell us that we are
making inroads upon the Constitution - that we are trans-
-gressing the laws of nature — Health - Happiness & Long life
appears to be the grand desideratum of all - but which very
few of us enjoy from those too constant excesses in which
we so often indulge - we sacrifice the first of these
blessings to those unpalpable & evanescent pleasures
induced by the gratification of the palate & as a nece-
-ssary consequence from the loss of health follows that
of happiness - for truly no one can be said to be happy
although surrounded by every thing that can tend
to render life desireable with the loss of this one of the
most inestimable of blessings - Then if these are
sacrificed - where shall we look for the grey hairs of old
-age - those evidences either of a sound Constitution
or of an adherance to those principles of simplicity
& temperance which are ever found to constitute a
leading ~~feature~~ characteristic & prominent feature
of those who attain to that extreme period allotted
to man," The truth appears to be that the human
frame is so constituted that with a proper adh.

-rance to those rules & laws which nature dictates - the
majority of the human family would endure to old age
& those frightful bills of mortality proclaiming the
subject of a premature grave. would consequently
be lessened in a truly wonderful ratio & more com-
-monly be confined to those who otherwise would have
sunk from the more palpable Evidences of the de-
-cay of nature

VIII.

Dissertation on Insanity.

By
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Insanity.

Gentlemen:—

I propose on this occasion to make a few remarks on Insanity. They are chiefly the result of careful observations of the phenomena of that disease, during upwards of a years residence at the Retreat for the Insane at Hartford. I do not intend to treat of this subject in detail for that would extend to a greater length than would be expedient on this occasion.

Insanity being a disease which not only affects the manifestations of the mind of the patient, often deprives him of liberty & the rights & privileges of society, but also involves property, conjugal & other relations. It is therefore highly important that the Physician who is called upon to determine whether a person is or is not Insane, should have correct principles to guide him in his opinion. In order to do this the question arises— What is Insanity? This is a question of importance, & demands careful consideration. Its solution involves a knowledge of the human mind,— how it is manifested,— what are its healthy & diseased actions. Where there is not a correct knowledge of its nature & properties, an exact definition is impossible, & any must be imperfect. It may be defined, an aberration of the manifestations of the

mind from a state of health. But what is this state of health? Such a definition can have no precise meaning only to those who previously Knew the healthy state of the mind in the particular case. To name a correct Knowledge of the morbid condition of any organ or function of the body implies also a Knowledge of the healthy condition of such organ or function.

It is usual to look for some deranged manifestations of the intellectual powers in Insanity; but there may be unjust and foolish apprehensions & unnatural desires & attachments & yet the mere manifestations of the intellectual powers remain unimpaired. If we consider deranged manifestations of memory—judgment & imagination as Insanity, we do not cover the whole ground, for there is Insanity of the feelings, propensities & attachments; & besides in some Insane the memory is more acute, the imagination more vivid & judgment stronger than natural. There are others also who manifest no derangement of the intellectual powers—memory, judgment or imagination, & whose feelings propensities & desires would appear natural, yet do not possess sufficient control over their actions, & who exhibit a morbid condition of some one or more of the Senses—See sights, hear voices & noises, perceive odors & tastes which are not perceptible to others & which do not exist; yet diseased action of the

five senses alone do not constitute Insanity— a person may be fond of unusual savors, &c— which depend upon individual idiosyncracy— & yet preserve a power over his actions, feelings &c. What then is Insanity? & in what does it consist? The best definition of Insanity I conceive is that given by Dr. Spurzheim who says that "Insanity is an aberration of any sensation or intellectual power from the healthy state without being able to distinguish the diseased state; & the aberration of any feeling from the state of health without being able to distinguish it, or without the influence of the will on the actions & the feelings. In other words, the incapacity of distinguishing the diseased functions of the mind, & the irresistibility of our actions, constitute Insanity."

Symptoms of Insanity. The Symptoms are very various. The function of automic life may or may not be disturbed. Most commonly, however, they are in the early stages - digestion & circulation especially: but in many chronic cases the functions of automic life go on apparently in their healthy action. The muscular system commonly exhibits the greatest apparent alteration. Sometimes it looses all activity— at others it exhibits inconceivable strength & activity so much so that the weak & delicate will often display almost preternatural strength & activity. Any of the five senses may be affected, either with in-

-creased or diminished activity, but Vision & Hearing is more often affected than any of the rest. Such patients often see objects floating in the air - see flashes of light & frequently persons & Objects which afford them much pleasure or are a source of apprehension & terror. Some Insane shut the eyes or cover them as if the light was a source of annoyance. Some stare & have a look of wildness; in others the countenance exhibits all the expression of grief, fear, rage, anger, hatred, &c. - the while in often found contracted or dilated - the eyes red & sparkling. Some Insane will frequently start & listen, as if they heard unusual sounds & often they will hear the voices of those with whom they have been acquainted. - Some hear music, &c. The appetite for food & drink is often more or less affected in this disease; in some it is so voracious that they will eat every thing of food kind that comes within their reach; others refuse food altogether & languish almost to faintness & even attempt to starve themselves. In some the desire for stimulating drinks is craving.

The feelings are variously affected. The modest & chaste exhibit the feelings & language of the libertine, the cheek which once would have been suffused with blushes at an indelicate look or expression, now exhibits the most brazen effrontery. Others exhibit an ardor & devotion of attachment nowhere else to be found. —

Pinel says, "I have nowhere met, except in romance, with fonder husbands, more affectionate parents, more impassioned lovers, more pure & exalted patriots, than in the lunatic asylum." Often the case is the reverse;- the feelings are blunted, or entirely alienated; the most endearing ties of consanguinity have no influence with the Insane, & those who were once the dearest & most beloved friends, are now looked upon as the worst enemies.

In others this disease takes a different course, they are prone to controversy, disputation, fault-finding, quarrelling, & exhibit often the most blind & savage ferocity. They not only disown near connections & manifest feelings of apathy towards them, but these are often the objects of their most ungovernable malice & hatred, & endeavor to injure them, while to others they are pacific & kind. Some are prone to mischief & seem to take delight in destroying all that comes in their way;- while others delight in inflicting injury on persons or animals by biting, kicking or striking them, & some even would wish to take the lives of those who oppose, or whom they imagine offend them. There are those, who while laboring under this disease, never forget or forgive a real or supposed injury, and spend their time in plotting means of revenge, or pouring forth imprecations on their supposed enemies. Others even exhibit this murderous impulse to a greater degree, & seem inspired by a desire to kill without any definite objection

paroxysm, this however is not always a feeling that is constant with the patient but it comes over him at times with a power which he is not able to withstand, while he is often at the same time conscious of his situation & the enormity of the crime which his feelings would induce him to commit. Others again impelled by this murderous propensity have been known to commit the act with seeming indifference, & yet appear sane on almost every other subject.

Others again show a propensity to steal, cheat, & dissimulate, who formerly were & even during their lucid intervals are scrupulously honest & frank. They often are very hypocritical & will dexterously in some instances conceal their real malady. Among the Insane there are many examples of those who fancy themselves, Emperors, Kings, Queens, Generals & all sorts of exalted characters; & there are examples even of some who fancy themselves the Almighty, the Saviour or the Holy Ghost; these usually are very ambitious - fond of display, show & ornament, - seek to be noticed & flattered, - have a proud haughty air, & endeavor to adorn & decorate their persons, & are exceedingly irritated when disputed on the point of their greatness & dignity.

Others are gloomy, & are continually brooding over some imaginary evil which is to happen to them or others. Some are taciturn & morose, refuse to speak & wish to be alone, they dislike anything which has the appearance of

quety. Some are filled with the most terrific apprehensions, are anxious & fearful, & often show their anxiety & sorrow by tears & lamentations — imagining that they are abandoned by Heaven & are left to endure the torments of Hell, — they are alarmed for the salvation of their souls, — & thinking themselves unworthy to partake of the comforts of life, deny themselves of every enjoyment. While on the other hand there are those who are constantly merry, laughing, singing & seem to take the most exquisite delight in everything. Some are extremely selfish, while others exhibit the most unbounded liberality. Some during their insanity are remarkably religious, while when sane they were not so.

Some laboring under this malady fancy themselves afflicted with various disorders which they will never recover from, & which will speedily destroy them, or which will contaminate others. Others imagine that they are changed to different sorts of animals, or that their bodies are the residences of evil spirits &c.; others suppose themselves to be under the influence of evil spirits, by whom they are held in control.

The intellectual faculties shows as various & unusual manifestations. In some they are surprisingly acute, and exhibit the most brilliant & ingenious thoughts, proper & luminous comparisons, and display the most beautiful imagery & poetic ideas. The memory is strengthened and the past seems spread out to their view with all the vividness

of present sanity. Many know in their lucid intervals & are terrified [illegible] their paroxysms & will sometimes reason on their malady with a good degree of clearness and discrimination. In some their wit & sarcasm is sharpened & they will often make the most cutting remarks. Talent for music is not uncommon among the Insane, as well as for elocution, poetry, painting & the mechanical arts, which are often surprisingly exhibited. But in far the greater number the judgment & powers of reflection are usually impaired, indeed in almost every case it is more or less so. Although the Insane may reason logically, yet it is usually on false premises but sometimes they will show a great degree of judgment & self possession on subjects not connected with their Insanity.

Thus we see that this disease has a tendency to pervert the character, destroy the feelings & sensibilities of the patient. Under its influence natural affection is destroyed; the humble becomes arrogant, haughty & proud, the pious blasphemous & profane, the modest & chaste assume the brazen effrontery & lewdness of the debauchee; the inclinations, the feelings, propensities, desires & in fact the whole character is perverted to a greater or less degree, or wholly destroyed, leaving only the wreck of what once was the

"Noblest & best of all created existence."

These symptoms do not all occur in the same individual, nor at the same time; sometimes not more than

one or two of the most prominent; yet it often occurs that several exist at the same time, so that the whole mind is deranged. Often one form [illegible] into the [illegible] of another and thus go on destroying [illegible] one faculty of the mind after another till the whole becomes involved.

Forms of Insanity. It is extremely difficult to arrange cases of insanity in distinct forms. After we have made a classification which would seem to embrace the whole subject, there are still some cases which would not be included [illegible] there are others which might come under the definitions of two or three different forms. The following is, I conceive, the best manner of classifying this disease; viz:- Mania,- Monomania including Melancholia,- Dementia,- Fatuity and Idiotism.

Mania. In this form of Insanity there is usually an aberration of some of the intellectual powers;- the feelings & propensities are not under the controul of the will. There is usually a great amount of nervous excitement;- the mind is agitated by an almost endless variety of impressions;- the judgment is perverted; the patient is subject to impressions of fear, distress, & many imaginary objects of terror; there is great excitement & frequently a total aberration, with but slight if any loss of the mental powers. The movements are quick & hurried; a rapid succession of ideas. There seems to be an unusual

amount of nervous influence. There are cases of paroxysmal Mania, who for a few days are maniacal of the most violent & excited kind, while during the intervals they are apparently rational. These paroxysms come on at irregular periods, from no apparent exciting cause, and last from one to six days. They are extremely irregular, varying in different cases and in the same case they do not observe the same characteristics.

Monomania. This form of Insanity is characterized by a hallucination affecting principally one faculty of the mind, and is usually on one subject only, upon which the mind constantly dwells, while all the other mental faculties are more or less brought to bear upon or participate in the hallucination; yet upon subjects, not connected with the particular delusion, the patient can reason correctly; & in short exhibits no mental alienation except upon the particular subject. In Melancholia there is a depression of spirits;- the patient is gloomy & taciturn; there is usually some delusion or hallucination of a gloomy character to which all the other mental faculties are more or less brought into subjection, without usually any aberration of those faculties; the patient dwells on the gloomy aspect of every subject;- is tortured by false apprehensions & dismal forbodings, and evinces an unwillingness to hear, or participate in anything which will tend to excite cheerful emotions. The primary affection is usually a hallucination on some one subject,

therefore in this respect assimilating Monomania. The patients general health is more or less impaired-appetite poor, digestion, assimilation, secretion &c. does not usually go on in a healthy & proper manner.

Dementia,- Is characterized by a total loss of some of the intellectual powers instead of mere aberration or perversion. The patient will usually exhibit some of the mental powers in their healthy action; is able often to perform many of the ordinary duties & concerns of life, while there is a partial loss of consciousness reason judgment, perception, imagination &c.

Fatuity,- Is a total loss of all the mental powers. The patient manifests no mind whatever, appears to possess only a sort of instinct to gratify the physical appetite,- will eat, drink, sleep & in some instances attend the other calls of nature,- while others appear wholly unconscious.

Idiotism,- Differs from the last form in that it is congenital, whereas fatuity is always brought on by disease. Idiotism is complete or incomplete. Complete Idiots those who show no trace of mind whatever are few compared with the incomplete, or incomplete Idiots there are various grades, some showing more traces of mind or manifesting more mental powers than others; and the limit to prescribe where a person is an Idiot or whether he possesses intelligence enough to render him capable of con-

-duting his own opinion is sometimes difficult to determine.

Suicide, It is proper that we should not pass over the subject of Insanity, without making a few observations on this form of the disease; characterized as it is by a strong propensity to put an end to life. Patients in whom the desire to commit suicide exists are usually of the melancholy class they are continually brooding over their troubles & are impelled to self destruction. This feeling sometimes comes over the patient suddenly & lasts but a few moments, & he is often able for the time to resist the propensity. In other cases it is a settled determination on the part of the patient to commit the deed, yet he will be looking for a favorable opportunity, — will have a peculiar way in which he must destroy himself & unless circumstances are such as will enable him to do it in that particular manner, he waits until the opportunity does present. Others are constantly on the alert, & snatch at every opportunity or means that presents to accomplish their object. In many patients this desire to commit suicide is the only symptom of Insanity, and when it is not present, appear as rational & cheerful as ever.

Causes of Insanity. That Insanity is a corporeal disease perhaps there can be no doubt. Although it manifests itself in derangement of the mind, yet the mind must have physical organs through which it can act, & there-

-fore it is these organs which take on morbid action in Insanity;- for the mind (or soul) being an immaterial existence, we can have no idea of it, as such, falling sick. It is no more subject to disease than it is to death;- therefore it is the organ through which the mind acts that is affected in this disease. Now what part of the body is this organ? Without going into an enquiry we take that which is conceded on all hands, viz;- the Brain. Therefore it comes to this, that the proximate cause of Insanity is in the Brain, & depends upon derangement of that organ.

Insanity is Hereditary- this is a common cause. The disease, or a predisposition to it, is transmitted from generation to generation. But what there is in the physical or corporeal system of the offspring of a person affected with this disease which is different from that of another & which thus predisposes to the disease, is not easy to determine. We know that it is so, & we cannot trace anything in the person so predisposed which will account for the phenomenon. Though it is by no means absolutely certain that children of Insane parents will become Insane, yet the susceptibility of such persons is proportionably increased, & when any exciting cause presents, they are certainly more liable to the disease than those in whom such a predisposition does not exist.

There are causes which injure the body alone; among

these are those which disturb or weaken the functions of the body, especially the nervous system. The secretions of digestion, of excretion, natural & morbid discharges it is well known affect the system; - also habits of dissipation & luxury often create a degree of sensibility & susceptibility these frequently so affect the system as to predispose it to Insanity. So also does pregnancy & the bodily changes incident to delivery. Food and drink particularly the habit of the excessive use of intoxicating liquors is a frequent cause; anything which upsets the circulation producing too great a determination of blood to the brain; - or which weakens or otherwise affects the nervous system, as long continued & inordinate, mental excitement - all these are frequent predisposing causes of Insanity.

That Insanity is severe & more violent at times & then remits like other diseases, there can be no doubt. A maniac will be more raving at one period than at another, also a melancholic will be more depressed, and a monomaniac will expatiate more on his particular delusion at one time than at another & even the demented & fatuitous will have their outbreaks. These periodical terms have no regular intervals & do not return at stated seasons & the laws which regulate them may be various, equivocal or unknown.

Insanity also alternates with other diseases & frequently during the morbid action which is going on in other parts of the system, there is a partial or complete intermission of the

-disease & sometimes it is cured in this way - by the setting in of other diseases; as well as other diseases becoming cured when Insanity comes on. Sometimes it is complicated with dis-eases depending upon the same causes.

The exciting causes of Insanity are very various, & often, it would seem, have no immediate connection with the dis-ease. They often do not give any definite character to the disease. Intense study, strong mental emotions making a powerful impression on the mind when the brain is in a state favorable for the development of Insanity - ex-citement of any kind, - religious excitement - or the depres-sing passions fear, anger jealousy intense application loss of friends, of property, & a variety of other causes may serve to develope this disease. I say develope, for I think the predisposing cause is present - that the brain is in a state favorable for Insanity & that when any of these causes presents the disease then actually shows itself & that the exciting cause has no particular reference to the disease, it might come on had it been anything else, or had none been presented; though in many the exciting & predispo-sing cause may be the same. For instance long contin-ued use of alcoholic drinks long continued indulgence in any of the depressing passions anger, hatred jealousy, a thirst for revenge pride ambition &c. - the long in-dulgence of which may so affect the mind as to be-come a disease.

Other causes, such as mechanical injuries- blows on the head fractures injuries of other parts of the system surgical operations &c. may so affect the brain directly or indirectly through the medium of the nervous system, or in some other way, as to become at once the exciting & predisposing cause of this disease. Also operating in the same manner may be enumerated various diseases- epilepsy, apoplexy, repelled cutaneous eruptions, gout, rheumatism, &c, and even general ill health, or extreme debility.

Prognosis. As the nature of this disease is yet enveloped in great obscurity any prognosis, must be uncertain- though from what is already known respecting it, we may sometimes venture an opinion in regard to its termination &c. In forming this opinion, some things may well be taken into consideration, such as the predisposition of the patient, the bodily strength & constitution, habits & peculiarities of constitution, age, sex, nature & form of the disease, its cause, duration, &c.

Where the disease is hereditary, or where there seems to be a predisposition acquired by, many attacks, the prognosis is unfavorable. In such cases a perfect cure is difficult & the patient is liable to a relapse. In persons of a strong, vigorous constitution not broken down or impaired by disease, the prognosis, so far as constitution merely is concerned, is favorable. In cases where the prognosis depends upon the cause, that cause must be removed or the prog-

-nosis is unfavorable, for the cause being present, that tends to keep up the disease. Where the cause is religious, melancholy the prognosis is unfavorable; - so also when the disease is complicated with epilepsy or palsy. When the disease terminates gradually & there is a steady return to health, the case is one more favorable to the durability of the cure than where it terminates suddenly. Remissions or intermissions of the disease, where the patient has lucid intervals, the prognosis is proportionably favorable. If mania or monomania degenerate into dementia or fatuity the case is almost hopeless; - but where there is weakness of the mind, with apparent loss of the mental powers, dependent upon debility of the system, the prognosis is favorable in proportion as the system can be invigorated by appropriate means - but where this state of the mind occurs without physical debility, the case is comparatively hopeless. There are cases which come on insidiously, - the patient at first appears a little singular - different from what he was formerly & which goes on increasing till he becomes a maniac, this after a while goes off, but instead of getting well, the patient becomes demented, with a sort of torpor of the mental powers & finally he becomes fatuitous, with general debility; the patient is feeble, becomes emaciated & has a disinclination to move or speak; such cases, I believe, are hopeless. In proportion to the duration of the disease, or the number of attacks the patient has sustained, the case is more or less unfa-

-vorable. Where the disease has continued but a short time previous to the application of appropriate treatment the prognosis is more favorable than where it has been permitted to run on for months or years as is sometimes the case; and the first attack the chances for recovery are greater than in subsequent attacks.

As the language expression manners & deportment of Insane persons is different from what it is in health, - so when we observe the return of these to what they are in health, however slightly or infrequent they may be the prognosis is favorable even if it appears in connection with the striking characteristics of the disease. It is frequently observed that just before death there is a sudden restoration of the mental powers. Insanity is liable to relapses & where it terminates suddenly without any apparent cause, it not unfrequently breaks out again at a short interval; perhaps in such cases there was not a perfect cure, - only an intermission of the disease.

Treatment of Insanity. The treatment of Insanity is usually divided into Moral & Medical. As the Moral treatment I shall say but little. The indications are to remove the patient from amid his accustomed scenes & associations which perhaps were the exciting causes of his disease, & which contribute to maintain the morbid train of thoughts & actions - to situations which present to the diseased mind new & pleasing associations. It is a well known fact that comparatively few cases of Insanity recover at their own homes & that removal

seem almost absolutely necessary & it is for this purpose that Hospitals for the Insane are erected, where they can be more successfully treated - which presents a greater chance for recovery. These should be located in a healthy situation, where the air is pure, the scenery beautiful & agreeable, - remote from noise & bustle, with spacious pleasure grounds for the recreation of the patients. The buildings should be furnished with the necessary apparatus & furniture for the purpose of most easily & successfully arriving at the object aimed at, viz, - the recovery of the patients. But as so much has been written, (the subject is still under consideration) of the best mode of furnishing & managing asylums for the Insane, I shall leave the subject with other & more experienced hands. Various sorts of amusement have been introduced into Insane hospitals, for the purpose of arousing the attention, exercising the mind, & exciting a new train of thoughts in the patients:- among which may be mentioned various sorts of games, music, dancing, occasionally, reading &c. - Some have been induced to perform manual labor & with evident advantage. Nor would I omit to mention the beneficial influence which the religious exercises of such Asylums exert on the minds of the patients. The object of all this treatment is to affect directly the mind of the patient & to bring about a new & healthy action of the brain.

The Medical Treatment of Insanity consists of the various pharmaceutical preparations & medicines which are

administered to affect the mind through the medium of the physical system; to produce in that a healthy performance of all its functions & thus induce a new action of the brain for if Insanity is a corporeal disease the proximate cause of which resides in the brain, it is clear that the functions of that organ are disturbed, & the object of treatment should be to obviate this. The disease may be sympathetic; the functions of the brain become disturbed from sympathetic action with diseased organs in other parts of the system - the digestive organs for instance. We well know that mental impressions will sometimes disturb the functions of any of the organs of the body, & also diseased action of these organs do often affect the mind. The object of treatment is to produce a healthy performance of all the functions of the body.

In many cases of Insanity the antiphlogistic treatment is indicated. In acute mania where there is much excitement, with entonic action & febrile symptoms - with full and tense pulse, bleeding is resorted to with much advantage. In addition to this if there is turgescence of the vessels of the head cupping & leeching had a tendency to relieve this symptom & allay excitement. There are cases of maniacal excitement in connection with which there also exists a degree of debility, - & which excitement depends upon an irritable state of the nervous system, occasioned by the general debility, in such cases depletion would only increase the debility which we are endeavouring to obviate. In some cases where there are fears

-kind of excitement occurring at intervals- abstracting blood from the head by the Scarification & cups or leeches, on the approach of the paroxysm, may be done with evident advantage, if it is not contra indicated.

Purgatives are administered to advantage in this disease, as a remedial agent. Insanity is most generally complicated in its early stages with obstinate constipation of the bowels;- and during the progress of the disease the bowels are often in a torpid state, especially in acute forms & therefore purgatives are to be used. Calomel is one of the best cathartics that can be used in this disease, either given alone or combined with Rhubarb, Jalap, Colocynth, or other cathartics; its changes the secretions & acts as an aberient & alterative. Croton oil as a cathartic acts with evident advantage in relieving congestion of the brain. In cases of melancholia & some cases of mania where there is extreme debility & exhaustion of the system, milder cathartics are used;- for this purpose Aloes gss, Gammony gss, Gamboge gr ½- made into a pill operates kindly. Castor oil may be used for the same purpose.

Where there is torpor of the nervous system & the patient is stupid & dull, counter irritants may be used with advantage. Blisters applied to the back of the neck & along the course of the spine, had a tendency to arouse the system. Tartar emetic ointment applied pretty freely to the same parts till it produces its peculiar eruption & kept up for a length of time, produces the same effect. Where there

of congestion of the brain the injection of a ligature to the back of the neck to keep up a discharge there relieves the head.

Emetics are sometimes administered with advantage. When there is any irritating substance on the stomach a light emetic may be given which besides relieving the stomach of the offending substance, had a tendency to create a new excitement & produce a change of action in that organ. But in cases where there appears to be congestion & determination of blood to the head, or where the patient is weak & debilitated an emetic would seem inadmissible.

In Insanity like other diseases the treatment should be adapted to the peculiar case. When the disease is one of debility it is important to husband the little strength there is remaining in the system, & endeavor to bring the patient up by the use of Tonics. Quinine is used for this purpose; so also the tonic tinctures, such as Tr. of Cinchona, Tr. of Gentian, &c. alone or combined with stimulants & aromatics. The metalic tonics are used with advantage; the Sulphate of Iron with Myrrh, in the form of a Myrrh Mixture is a valuable tonic preparation. The Red or Peroxide of Iron with extract of Opium, combined with stimulants & aromatics, in the form of a Syrup, is a valuable remedy in this disease; it allays excitement & irritability of the nervous system & gives tone & vigor to the system generally. With these preparations may be combined small doses of cathartic medicines, such as Tr. of Rhubarb, or elixir proprietatis, to keep the

bowels open.

Narcotics are indicated in this disease. First on the list & perhaps the very best is Opium or some of its preparations. It allays irritation, quiets excitement, & by its diaphoretic properties, determines action to the surface. Morphine, however is preferable to opium in substance. Hyoscyamus & Stramonium are used in this disease. The Bromium, when used with Iron as before mentioned, is one of the best remedies to allay irritation & excitement, & to quiet the System generally. Valerian is a good remedy. the oil, combined with Lupuline, Hyoscyamus & a small portion of Camphor, will allay irritation in debilitated cases, obviate restlessness & promote sleep.

Digitalis, combined with Mine of Antimony, Syrup of Squills, & Sweet Spts of Nitre is a good preparation; - in many cases it, in a degree, allays irritation & febrile symptoms promotes the secretions, especially that of urine, which in many cases is more or less disturbed, & has a tendency to relieve congestion of the head, & it equalizes the circulation.

The Blue pill, Dover's powders - Calomel, either alone or combined with Dover's powders, or Specacuanha, in small doses, are used with advantage to promote healthy action of the stomach, bowels, liver, Skin, & change morbid secretions.

The Warm bath will allay irritation frequently & act on the Skin; also rubefacients & frictions. The Cold, Shower baths are sometimes used. The sudden & copious applica-

-tion of cold water to the head is a powerful means of quieting excitement.

Cases complicated with affections of the uterus, in addition to other remedies usually require treatment appropriate to the disturbed functions of that organ, and the same may be said of cases produced by mechanical injuries of the Brain.

Joel Fuller Graves,
Hartford, Vt.

New Haven, January 1844.

IX.

Dissertation

on

The Powers of Medicinal Agents— their individuality, combinations, peculi-arities, modes of management, &c.

By

Alonzo Fuller,

of Lebanon, Connecticut,

candidate for the Degree of Doctor in Medicine.

Powers of Medicinal Agents.

Their Individuality – Combinations Peculiarities – Modes – of Management &c –

1. Some twenty or more medicinal powers operations or effects are enumerated and described by authors. Though there may be this number of distinct & different medicinal operations or effects yet the great majority of the articles composing the Materia Medica, posses a plurality of medicinal powers & are capable of producing two or more different & distinct medicinal operations at one and the same time & in other words different and distinct medicinal powers are combined in the same article eg. Opium is Stimulant Narcotic Diaphoretic &c. Tobacco is Stimulant Narcotic Diuretic Emetic Cathartic & Calomel is Cathartic – Alterative or Deobstruent Arsenic is Tonic Emetic & Cathartic.

Squills and Senega are Emetic Cathartic Expectorant Diuretic & Emmenagogue.

11. These medicinal powers though always found in combination with each other in the articles above mentioned are nevertheless different & distinct powers. and though in the present state of our knowledge we may not be able to analize them & present each medicinal proximate principle (so to speak) separate & uncombined yet this no more disproves the position than the fact that Oxygen was not discovered untill 1772 or Iodine untill 1811. proved that they were not distinct elements previous to that time.

There are articles in the Materia Medica which possess out one of these powers & cannot be made to exert directly any other e.g. Hydrocyanic acid Cicuta maculata Anamyrta panniculata. Amygdalis communis Cerasus Lauro-Cerasus. the Daturae Belladonna seem to be pure narcotics and incapable of producing any other primary operation.

Aloes Gamboge Scammony Jalap oil-of-the Euphorbia lathyris Croton tiglium Ricinis communis may be considered as pure cathartics as they seem to produce no other direct & primary operation

Cinchona Gentian Calumba Quassia

The Alkaloids Quinine and Salacine some of the preparations of Iron are pure tonics. The number of articles however which possess but a single power are very few in comparison with the whole, still there are enough to show that the state of combination in which we often or even more generally find them is not a necessary or essential but only an accidental condition.

III. We find in different articles the combinations of powers varied to an almost endless extent e.g. In one article we have narcotic & stimulant powers combined as in Opium Camphor Alcohol &c. In another narcotic & emetic powers as in Veratrum viride Sanguinaria Canadensis. Another is narcotic emetic & cathartic as Phytolacca decandra Asparagus Officinalis. Another is stimulant narcotic emetic cathartic & diuretic as the "Nicotiana tabacum. Another is cathartic and emetic without being narcotic, one is alterative and emetic while another is alterative and cathartic. another may be alterative or in other words deobstruent without being either emetic or cathartic.

IV. Besides no two articles made from roots have the same name produce precisely & exactly the same effects on the animal system i.e. the quality of their operations though they are nominally identical, is still unlike & that of each peculiar to itself so much so that an accurate observer can easily discern a difference

The narcotic operation of Opium differs from that of Strychnos Camphor from Digitalis Tobacco from Conium as is known by their ultimate & extreme effects when taken in poisonous doses. Camphor for instance produces Epileptic convulsions Strychnos tetanic spasms Tobacco suspends the action of both the circulatory & respiratory systems at once, while Opium destroys life by suspending the respiration primarily while the action of the heart may continue for sometime with considerable regularity. The emetic operation of Tartrate of Antimony & Potassa differs from that of Lobelia and Sanguinaria so that the patient even will distinguish them by their sensations.

The cathartic operation of Aloes differs from that of Castor oil & that of Elaterium differs from both - The stimulant operation of Alcohol differs very materially from that

of Cantharis — Phosphorous or Carb of Ammonia

Perhaps it might be questioned whether these differences do not depend on the other powers with which they are associated in these different articles. This doubtless may explain it in part in those articles which possess a different combination of powers but it will not hold with regard to those articles which possess the same powers in name & which still differ so manifestly in the quality of their operative effects. And besides if this were a complete explanation two different compounds so managed as to bring the same nominal powers together in each but each compound at the same time composed of different articles should produce precisely the same effects which is not the case eg. Camphor (a narcotic) combined with Tartar Emetic or Specac should produce the same sensations and quality of effects as Sanguinaria Tobacco or Veratrum which being both narcotic and emetic in themselves possess the same aggregate of powers

V. Again these articles though possessing different powers which are capable of producing different operative effects may be made to produce one or another of these effects by a particular mode of management according to the intent of the physician or the indications of a given case. Alcohol may be so managed as to secure its stimulant without any perceptible degree of its narcotic effects and by a different mode of management it may be made to produce immediate ultimate narcosis. The same also is true of Opium. The former effect is manifested when taken in small doses frequently repeated the latter when taken in a single overwhelming dose at once. Of Tobacco, squills & ipecacuanha are administered as diuretics or expectorants they are so managed as to fall short of emesis. If calomel is given as an alterative simply it is exhibited in smaller doses and allowed to remain longer in the alimentary canal than when given mainly for its cathartic effects. If Arsenic is used as a tonic it must not be pushed so as to nauseate and vomit

Or by combining articles which possess different powers we may counteract or correct an unfavorable and promote or enhance a desirable operation If an emetic in a given patient is liable to operate harshly and cause severe retching this unpleasant effect may be prevented or obviated by the administration of some narcotic antiemetic If from a free use of Cantharis oil of Pinus painful irritation and strangury is produced this annoyance may be relieved by articles possessing an opposite power. Or if on the other hand torpor of the bladder or a paretic condition of other organs exists in consequence of a free use of narcotics or from other causes Cantharis the terebinthinate oils & other analogous articles are appropriate remedies for this condition. Thus are these powers capable of being made mutual antidotes for the excesses or morbid effects of each other.

Or if managed in another way they may be made to act in concert and both conspire to fulfill a single indication each in its own peculiar way of course and by virtue of its own peculiar quality of action Opium and Cantharis for instance are stimulants

one acting more specially upon the brain & nervous system the other upon the mucous membranes of the stomach alimentary canal & urinary organs. So that by a combination of the two where proper indications exist an important end may be gained and a degree of power exerted in meeting overcoming or changing diseased action which could not be gained by one alone. So also the operation of Opium may be qualified and its action directed by Specac Tartar Emetic Specac Quinin Tartar Camphor &c as in the combination known under the name of Dover's Powder. Paris remarks in his Pharmacology page 89. "Opium is by no means disposed to act upon the urinary organs when exhibited singly as Calomel & some other mercurials when given in conjunction seem to direct its action to the kidneys & to render these organs susceptible to its influence. Opium increases the sudorific powers of Antimony the purgative operation of Jalap is promoted by Specac."

Some other facts though perhaps more curious than useful illustrate this point. The stimulant effect of Alcohol may be counteracted it is said by taking Opium to freely as to obtain a degree of its narcotic effect incompatible with just sufficient to counteract the stimulant effect of the Alcohol. I once heard of young men who as they expressed it could drink all their comrads under the table by this means. Although this must require considerable nicety & tact to get just the proper counteracting dose yet it may not be impossible to acquire it.

It is even said that Alcohol itself may be so managed as to rouse a man from a fit of intoxication produced by Alcohol

It is also stated by good authority that Opium may be made efficient for the relief of coma

Paradoxical as these statements may seem at first view yet when we call to mind the powers which these articles possess and the different effects they are capable of being made to produce by particular modes of administration it does not seem altogether impossible but on the contrary quite probable that such effects may be produced -

VI. I have thus far spoken of remedies alone. I now remark briefly that diseases for the alleviation of which remedies are studyed & used are attended with symptoms as numerous as, peculiar in their character & various in their combinations as are the powers of remedies. of course an intimate knowledge of all these points is necessary & essential to their judicious application in the treatment of disease. And besides the operation of these powers if properly understood & noticed often afford us striking diagnostics of the true nature & character of disease. Withering remarks "The ideas of disease which we acquire from observing the operations of medicine are more apt to be correct than those acquired by observing the symptoms themselves" Hence I must been led to infer the importance of a thorough & extensive acquaintance with Materia Medicas Indeed this subject alone seems to me to furnish ample materials for [illegible] the most persevering research & discriminating investigation, even among articles now in general use. But in addition to these the fields of research, including the

animal mineral & vegetable kingdoms, is yet vast & boundless. Surely, in this department of our Science, no one ever need to sigh for other worlds, to conquer.

Without a knowledge of Materia Medica all other medical Science so far as the alleviation of pure idiopathic disease is concerned (except cases of a purely Surgical character) would be useless. We might understand the nature & character of the disease, be able to assign its true causes, observe its rise, progress and termination, and explain all the phenomena which might occur, but, without a knowledge of the means of cure, of what service would all this be to the suffering patient?

It would probably be about as consoling to him, as for an Inquisitor to explain to his victim the modus operandi of the Rack, and the sensations he would experience when subjected to its tortures.

X.

Dissertation on Scarlatina.

By

Samuel Brown Fuller,
of Hartford, Connecticut,
Candidate for the Degree of Doctor in Medicine.

Scarletina

The principal phenomena attending this disease are the same with those which usually usher in fevers. followed by a fine scarlet efflorescence, intense heat of the surface, with inflammation, or ulceration of the tonsils and other parts of the fauces.

This disease occurs under three forms sufficiently distinct for discrimination Viz. Scarletina Simplex, Scarletina Anginosa, and Scarletina Maligna.

The causes of this complaint are not as yet satisfactorily settled.

It is supposed by some that the disease under consideration is strictly contagious. by others infectious. by a third party that it is neither infectious or contagious, but the offspring of a peculiar miasma of very subtle and deleterious qualities.

Its origin is not sufficiently understood to afford us any definite conclusions- but probably if not of atmospheric incubation rendered more active and poisonous in its effects on the human constitution by latent and important changes in its elementary composition giving the disease a truly epidemic character.-

That Scarletina is contagious may be considered as highly doubtful.

By contagious diseases strictly so, I would be

understood to mean those communicated by contact only. Of this character there are but few diseases among which may be found. Itch, the Vaccine disease, Syphilis, Clap &c.

Variola, to take a strong example is both contagious and infectious. The disease is taken by actual contact, with the secretions taken from the patient and carried in a tangible condition any distance and kept for a great length of time. A patient with variola also impregnates the atmosphere to a considerable distance from himself with the seeds of the disease which are not tangible, so that a person approaching within the limits of this atmosphere is almost certain to take the complaint, though he should not have touched the patient or any thing the patient had handled.

In the first instance the disease would have been communicated by contation, in the last by infection.

As there are diseases which are strictly contagious, and those which are both contagious and infectious, so there are diseases which are strictly infectious, and by this law only is the specific character of the complaint maintained and perpetuated. Among the diseases of this last discription may be named Rubeola

Pertussis &c. and perhaps I may not venture too far in adding to the list of true infectious diseases that of Scarlatina.—

The arguments for and against the contagious or infectious character of this complaint are familiar and have so often been brought forward as to have become trite.— For these reasons I shall pass over this part of the subject, and only mention in confirmation of the infectious character of some, and the contagious character of others of the exanthemata.—

That these complaints were unknown in Europe until after its invasion by the Saracens; these and to the European new Diseases they brought with them.— From that time they have been perpetuated by their own peculiar laws, with more or less fatality, according to certain conditions of the atmosphere, favoring to a greater or less extent the operation of this subtle and truly virulent poison on the human constitution.— I may add, it was long before the Physicians of that Country learned to distinguish with much discrimination and accuracy the different genera of the exanthemata.

It would be unwise in me to attempt to establish either of these positions, as Physicians

of great eminence are at variance on this subject. I shall therefore pass on to relate the particular symptoms of the disease. - - -

Symptoms. The three varieties of scarlet fever are considered by most Physicians as so many grades of the same disease, originating from the same cause, and exhibiting the same symptoms, but in a greater or less degree of intensity. Therefore by relating the symptoms of Scarlatina Simplex, I also give the primary symptoms of Anginosa, and Maligna. -

The cause of Scarlatina whatever it may be frequently attacks the vital principle through the medium of the nerves. and extinguishes life without reaction, or the ordinary symptoms of fever, unless some effort be made to rally the vital functions. This constitutes one of the most unmanageable and fatal forms of the disease, But little notice is taken of it in books, and no very satisfactory mode of treatment proposed.

The disease more usually commences with cold chills, a languor or sense of debility, followed by heat of the surface, - the tongue is white in the middle, of a scarlet redness at the edges. the throat and fauces are more or less inflamed,

nausea and sometimes vomiting takes place. the papilla of the tongue protrude through the fur, and have a bright scarlet appearance the pulse is frequent and quick. pain in different parts of the body. the skin is hot and dry, numerous specks or minute patches of a vivid scarlet appear about the face and neck on the second day. In the course of the third day the efflorescence becomes almost continuous over the whole surface of the body, and of a fine scarlet hue. on the evening of the third and fourth days, the rash is the most vivid. It usually begins to decline on the fifth day. —

In Scarlatina Anginosa and Maligna these symptoms are greatly aggravated. the heat of the body is excessive. the throat and fauces are ulcerated or become even gangrenous. the pulse ranges from one hundred and twenty, to one hundred and forty, the breath is fetid and the whole body emits a cadaverous smell. — there is extreme nausea and vomiting. this last symptom is sometimes the first indication of disease. The efflorescence is continuous over the whole body and of the color of mahogany or the shell of a boiled lobster. —— In some aggravated forms of Scarlatina Maligna, the efflorescence is only,

distributed in patches disappearing and again reappearing. In others it is almost entirely wanting — In these cases the other symptoms are much elevated particularly the ulceration of the throat. An acrid discharge takes place from the nostrils with soreness chaps and blisters about the mouth nose and lips. ———

Pathology. As it regards the pathology of this disease particularly the anatomical lesions found on post mortem dissections. sufficient has not been yet done to bring us to any very definite or satisfactory conclusions. It is supposed however that local determinations. such as are secondary to other forms of fever. happen in this and are in fact the most embarrassing and dangerous circumstances we have to contend with. ———

Treatment. The mode of treatment in this disease should be varied according to the symptoms. — If the cold chill and nervous prostrations are great the indications of cure will be to produce a reaction of the system. This will be best effected by stimulating applications to the surface. and by the cautious exhibition of stimulants internally — Externally. mustard

paste or mustard baths bathing the extremities in warm water, while the body is kept cool. frictions &c - For internal use warm drinks will sometimes produce reaction: at other times cold drinks will effect the same purpose. —
Alcohol and the infusion of Capsicum are used in some cases with benefit. An emetic of Calomel and Ipecacuanha is administered by some Physicians in this stage of the disease it is said, with success. — —

Should the efforts of nature assisted by all or any of these remedies produce reaction our care should next be that it is not too violent. If the pulse become hard and full face flushed the surface of the body emitting great heat, and other symptoms indicating high inflammatory action: the best and surest remedy is bloodletting. followed by a brisk cathartic of Calomel: — Antimony should be given in small doses, - the bowels kept loose with neutral salts or salts and manna. Should the heat of the surface be over great, the whole body should be sponged with cold or tepid water, the infusion of capsicum as gargles should be used where inflamation of the throat is present. or small pieces of ice held in the mouth

Where there is much heat and inflamation about the throat leaches and poultices should be applied. ----

In the use of these remidies care should be taken that they are not carried so far as to produce unnecessary prostation:- Should symptoms of prostation present themselves, we should immediately lay aside all remidies that have a tendency to increase it and employ such as will stimulate and give strength to the system.— The remidies best calculated to fulfil this indication are stimulents combined with tonics. Wine or pure whey. Carbonate of Ammonia and Brandy and water may be given in small and repeated doses- The infusion of Serpentaria Quinine the Sulphuric and muriatic acids are the principal tonics and those most to be relied on;- Where the brain is not particularly affected nine camphor and Opium should be used. -

During convalescence from Scarletina which is generally tedious a light and nourishing diet should be enjoyed- and the patient kept carefully guarded against the influences of cold and variable weather. When there is considerable debility and irritation present

mild tonics and vegetable remedies should be prescribed such as weak infusion of Serpentaria Columbo Gentian, with some of the mineral acids particularly the Sulphuric or Muriatic.

In some cases more or less irritation remains during the early part of this period.- The pulse quick and frequent the skin pale and dry the bowels inactive. Should this happen recourse must be had to mild aperients Diaphoretics warm bathing and a simple unirritating diet.

Among the effects of Scarlatina an inflammatory Dropsy is a very common consequence of almost every modification of this disease The general state of the system is manifestly phlogistic. the pulse is quick hard tense frequent and sometimes full. In this case many Physicians recommend bloodletting while others depend on keeping the bowels in motion with purgatives,- others depend on diuretics particularly on the digitalis.—

Inflammation of the parotid gland is sometimes the sequel of this disease exhibiting another form of secondary affection and should be treated with purgatives. Leaching. or Cupping

Should there be suppuration in anticipation

warm emollient poultices are the best application that can be made.— The abscess should not be punctured, until such time as the inflammation has to some extent subsided, or the skin extensively softened, or about to open spontaneously.

Rheumatism is another form of secondary affection which requires some attention.— It exhibits the usual phenomena of acute Rheumatism and requires the same remedies

The tinct of Datura stramonium is considered a specific by some and is probably a useful remedial agent.—

In concluding this subject, I would remark, that the Physician should be always on the alert to detect in every stage of the disease congestion or inflammation of the head chest or Abdomen or any of the various complications which not unusually attend this disease and combat them early, with the appropriate remedies as in this rests his great and efficient strength.

Samuel B. Shelton

XL.

Dissertation
On Arsenious Acid
by
William Henry Goode
of
Powhatan County Virginia
Candidate for the Degree of Doctor in Medicine.

The Authors in whose works I have met with Arsenious are the following viz

Dana. Epitome of Chimical Philosophy. Concord 1823. Page 120. 14th line

Epitome of Experimental Chimistry by William Henry M.D. 2nd American Edition Boston 1810. Page 223. 6th line from the bottom

Comstocks Grammar of Chimistry Hartford 1822. Page 155 Section 377. 45.

Arsenous

The chimical nomenclature was originally formed in Latin, & the name of each element terminated in *um*, as *Sulphurum* *Molybdenum* &c. Of course Arsenicum must & is now the term by which the metal Arsenic is designated in the nomenclature

It is a principle in nomenclature, that when an element is known to form only one acid, with an acidifying principle, the name of that acid shall terminate in *ic* as *carbonic*. If however the same element forms two acids with one acidifying principle, the name of the acid containing the greatest number of equivalents of the acidifying principle terminates in *ic*, as *Sulphuric*; & the name of that containing the less smaller number of equivalents of the acidifier terminates in *ous*, as *Sulphurous*

According therefore to the principles of nomenclature we have in the case in question

Arsenicum — the metal

Arsenic Acid — $3\,As + O5$

Arsenous Acid — $2\,AS + O3$ — in analogy with

Sulphurum	*Molybdenum*
Sulphuric Acid	*Molybdic Acid*
Sulphurous Acid	*Molybdous Acid* &c

Is the Sesquoxide of Iron an Antidote to Arsenous Acid

Recently the attention of physicians has been called to the subject of poisoning with arsenous acid by Dr J Lawrence Smith who has published in the American Journal of Science vol XI No 2 a paper on this subject. In this paper a number of interesting points are discussed, the most important of which however relates to the mode of obviating the deleterious effects of this article when administered in doses or quantities too large to produce their proper medicinal effects. Dr Smith says page 292. "The remedy most to be relied on is the hydrated peroxide of iron; it being a veritable antidote to poisoning by arsenic; however there are some objections the principals of which is the slowness of its absorption, for it is only when it encounters the poison that its salutary effects are displayed by forming with it an inert arsenite of iron." The substance here spoken of as the hydrated peroxide of iron is in reality sesquoxide of iron combined with one equivalent of water,

and on the supposition that the compounds of of oxygen & hydrogen are acids, this compound would be a hydride of the sesquioxide of iron.

This quotation from the American Journal of Science embodies the views of the French experimenters generally respecting the action of these two substances upon each other: and as they assert that the hydride of the sesquioxide of iron has ~~been~~ preserved the lives of animals to which arsenious acid had been administered in poisonous doses, all the facts connected with the subject deserve a fair examination.

According to Dr Christison the hydride of the sesquioxide of iron was introduced as an antidote to poisoning with arsenious acid by Mr Bb Bunsen & Berthold of Göttingen, & their results have been confirmed by Mr Mr Soubeiran & Miquel & by Mr Mr Orfila & Lesuer in their experiments on dogs; & by Mr Bouley who experimented on the horse.

Let us now examine critically the rationale of above given of the action of arsenious acid & the hydride of the sesquioxide of iron upon each other.

It is said that both substances are absorbed,

& both are extravasated, when by chimical affinity an inert substance is formed & life if it had been endangered by the arsenous acid, is preserved provided the hydride of the sesquioxide of iron becomes extravasated in time to prevent any deleterious action upon the tissues. But the proofs of this absorption & extravasation have yet to be placed before the public, nor does the assertion that the deleterious effects of arsenous acid are produced in the different tissues of the system rest upon any evidence whatsoever. It was first shown by Couerbe that arsenic in some form was a normal ingredient of the bones muscles & viscera. This however is no proof that when life is destroyed by arsenous acid, it was first absorbed & then acted upon the tissues. Are the remedial effects arsenous acid in intermittent due to absorption & extravasation? Does it cure cutaneous eruptions when taken internally by being absorbed & then extravasated under the cuticle? I think not. If the maxim of Sinnaeus be true, that all medicines are poisons, & that a poisonous is only an excessive medicinal effect, & since no medicinal effect is produced by absorption & extravasation

when life can not be destroyed by this mode of spreading & the action of the antidote fails to be accounted for on this principle If however absorption & extravasation really takes place, it is reasonable to infer that these substances would appear on the surface of the body or on the transparent cornea; where they might be inspected, no such effect however has been reported. Whether the arsenious acid is absorbed or not a question arises respecting the formation of the arsenite of iron, reported to be inert. I boiled for several hours some of the hydrate of the sesquioxide of iron, made by precipitation with ammonia from the sulphate of the sesquioxide, without observing any with arsenious acid without observing any change to take place in either substance. A result coinciding with that of Mr Brett of London & confirmed by Dr Turner who says the salts of arsenious acid with the exception of the arsenite of potassa & of ammonia can only be procured by double decomposition The vital powers it is well known sometimes suspend & sometimes allow chimical action to go on within the stomach in the same manner as without it, but I am unacquainted-

with any facts which favour the opinion that they cause a chimical union of substances which have no affinity for each other. It may however be said that a decomposition of the hydrate of the sesquioxide of iron is effected in the stomach or in the tissues so as to present the protioxide of iron in a nascent state to the arsenous acid, which under these circumstances combines with it, thus forming the inert arsenite of iron above mentioned; This leads us to an examination of the changes produced in the medicinal powers of an article by chimical combination. Some substances in their elementary state are medicinally inert, but by combination they receive certain peculiar & distinguishing medicinal powers which are imparted to all the compounds into which they enter. For example, metallic antimony is inert; but all of the compounds of antimony are more or less purgerant. Metallic iron is inert, but all its compounds are tonic. It is also true that two elements which are each separately inert, by combination give rise to a body possessing medicinal properties; as nitrogen & hydrogen which are themselves inert, by but ammonia is

medicinals. Nor do elementary bodies, as Iodine for example, possessing medicinal powers lose those powers by chimical combination, though they may in a given specified compound be exalted or ever weakened. Neither is the iodid of potassium nor that of iron inert. There are therefore two classes of medicinal agents; viz. those which ~~not~~ in their elementary states, possess medicinal powers, & those which in that state are inert, but which by combination become medicinals. When however the power of producing medicinal operative effects upon the system depends upon some external & sensible property of any body substance as acidity or acridness, this power is most commonly destroyed by combination This law has many exceptions; some salts are neutral; in others the acid predominates & in others the external & sensible properties of the base are unimpaired. Since therefore the external characters of bodies are not destroyed by chimical combination we cannot fairly infer that their occult properties are at all affected; and indeed

if in all cases of chemical combination those properties of the constituents of a compound which are cognizable by the senses were destroyed, no inference can therefore be made respecting the destruction of properties not cognizable by the senses. The generally received opinion which regards every change of form as destroying one set of properties in an article I believe to be incorrect; changes of form by chimical combination may invest it with new powers may exalt or weaken those it originally possesses, but none of them are lost, unless they depend upon sensible character. On the contrary the fact that cyanogen acts medicinally as cyanogen in all its combinations, (provided a sufficient quantity of the compound is taken to get a dose of the article) is a striking proof that a decomposition of the cyanogen & a recomposition of its elements has not taken place in the formation of the new body.

If this reasoning be correct the arsenite of iron should not be an inert article. Arsenous acid when combined with potassa will if

taken in sufficient quantity produce the deleterious effects of the crude acid. The insolubility of the arsenite of iron is no argument against its being active. Calomel is insoluble & is an active article; and arsenous acid itself exceedingly active as it is is a nearly insoluble substance.
There is however direct testimony on this point. Mr Brett says that the hydrite of the sesquoxide of iron will not decompose the arsenite of potassa, but the sulphate of the sesquoxide will decompose it; that the hydrite of the sesquoxide of iron administered to a rabbit a few minutes after a small dose of arsenic had no apparent effect in retarding its death; & that gr V or VI of a carefully prepared arsenite of iron seemed to act nearly as fast as the arsenic itself in destroying life. It may be stated in this connection that the smallest dose of arsenous acid ever known to destroy life was gr IV ss which proved fatal to a child four & a half years old in six hours after it was taken. In concluding his article on arsenous acid Dr Christison adds respecting this antidote says; "From the circumstance that

Orfila & Bouley & others have found it necessary to give the sesquioxide of iron in very large quantities in proportion to the arsenic, so as to obtain any good effect, it seems probable that this substance like charcoal powder & magnesia is not a true antidote, but may nevertheless be occasionally of use by enveloping the coarser powder of the arsenic with its fine impalpable adhesive particles" How much good the sesquioxide of iron may do in this way or whether it does any I am not prepared to say. From the reasons above given I am certain that it cannot be an antidote to arsenious acid; & if it is serviceable at all in obviating the deleterious effects of this substance, the method pointed out by Dr Christison appears to be the only one possible by which service can be rendered.

[illegible] XII [illegible].

Dissertation
on
Colic.

By
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of New Haven, Connecticut,
Candidate for the Degree of Doctor in Medicine.

Mr President, my respected Teachers and Fathers in the Medical Profession of the ~~Republic of Connecticut~~) Having purposed to devote my future days to the service of doing good to my fellow men and Having passed through the customary form of preparatory Study on medical Subjects prescribed by those whose prerogative it is to exercise a Salutary Supervision on affairs relating to the practice of Medicine; I have in presenting myself here as a candidate for an official examination been actuated chiefly by a desire to take counsel of and maintain a friendly relation to those who have devoted long and useful lives to the same liberal pursuit. Knowing your requirements in regard to a disertation on some Subject connected with Medicine I submit the following, As my Space for writing has been brief I shall not at this late hour trespass long upon your time)

(The difficulty of describing the various cases of disease and referring them to this or that particular class order or species into which Nosologists have divided them

is doubtless obvious to those who have ever observed or felt the various kinds and grades of morbid action in the living System) the subject which I shall discuss is that disease described by writers by the name of

Colic

I have selected this subject from the fact of its frequent occurrence and often formidable attack, a disease occasioning much fear on the part of friends and anxiety and distress manifested by the patient whose sufferings are depicted in the countenance and all his motions, this disease may develope itself in a sudden and hurried manner, or it may be slow and insidious in its approach, it may affect only the intestinal canal or it may have its seat or origin in other viscera of the abdomen and hence different names have been given by writers according to manner in which the disease makes its appearance and the organ affected or involved in the general disease

To wit:- Flatulent, Bilious, ~~Nephritic, Hysteric,~~ Painters &c

As many distinctions made by authors are attempts to nosological refinements I shall notice such only as are of practical importance) Colic makes its appearance more frequently under that form of disease

described by Gregory "accidental colic" by others as Flatulent Colic, Causes, irritability of the digestive organs, and crude indigestible food, which produces much gas frequently occasions this disease, Symptoms As the term would imply there is great distention of the abdomen with flatus, with a rumbling noise, nausea and retching, there is great costiveness, pain, sourness griping of the bowels, with coldness of the extremeties, these are the most prominent and usual attendant Symptoms, there are others which are incidental which I do not stop to consider, Diagnosis there is not much difficulty in distinguishing this form of the disease the relief experienced by abdominal pressure the agitation and twisting motions of the patient, the absence of fever, the pain which occurs in paroxysms, and frequent eructations of flatus, distinguish it decidedly from Gastro intestinal inflamation, From Billious Colic, it may be known by the absence of billious vomiting as well as the want of the jaundiced eye the bitter taste in the mouth the obstinate constipation and headache which particularly characterise that form of Colic

From Colica pictonum it may readily be known by the want of hardness of the abdominal muscles and ~~the gradual~~ accession of the disease not being gradual as is particularly the case in that form. Prognosis. This form of colic rarely proves fatal and is not considered dangerous unless connected with or terminating in inflammation of the mucous coat of the intestinal canal; a termination which may occur though it does but seldom. Where there is great distention it may produce Paralysis of the bowels or of some portion, causing great torpor of the alimentary canal and a frequent recurrence of the disease. It may cause intus susception or invagination of a part of the intestine followed by symptoms which prove fatal; or where very irritating and indigestible substances have been taken it may occasion gangrene speedily. The treatment of this form of colic I defer until I have mentioned the other varieties.

Bilious colic is usually preceded by some premonitory symptoms before the disease fully developes itself, such as head-ache, diminished appetite, a bitter disagreeable taste in the mouth, followed by some nausea and perhaps vomiting. After these symptoms have continued for an indefinite period there will be acute pain in the region of the umbilicus, and the nausea and vomiting will be more severe, after this last there will be a temporary abatement of the symptoms - the Stomach

is still extremely irritable and easily excited to vomiting again yet the bowels are still obstinately constipated, there is some febrile heat, and after a short time a recurrence of the paroxysm.

In extreme cases there will be coldness of the extremities during the exacerbation of pain, the nervous system is much affected and the patient desponds. sometimes the muscles of the lower extremities are affected with spasm and occasionally there is numbness and tremor of the upper extremities. Eructations of flatus occur in this form and sometimes they are followed by a mitigation of the abdominal pain. Causes on this point I shall not dwell. The predisposing causes are probably atmospheric heat and miasma for it seems to occur under the same influences as dysentery and cholera. The proximate cause is considered to be an increased secretion of bile of an acrimonious quality.

We come next to the notice of Colica Pictonum. this is described by Authors under different names as Painters Colic, Lead Colic, Devonshire Colic, Colica Saturnica &c.. This form is often gradual in its attack commencing with some Gastric disturbance, as loss of appetite, foul eructions, languor, slight nausea, constipation. with transient pains and a feeling of fulness and Tension in the abdomen. the pain gradually increases in severity in the region of the epigastrium and umbilicus. The abdomen becomes hard, the integuments retracted towards the spine, they are

somewhat tender to the touch, but pain is relieved by steady pressure - there is great torpidity of the bowels, and the stomach is more or less irritable, & sometimes there is a slight remission of the symptoms after vomiting - In severe cases the pain reaches upwards as far as the chest, and downwards to the pelvic viscera causing pain and tenesmus about the bladder and rectum.

Great anxiety prevails during the paroxysms - there is a cold clammy feel of the extremities, and a pale and shrunken appearance - the countenance expressive of much suffering - convulsions and delirium often occur in the severe cases, and if death is averted paralysis of the extremities may remain.

Other forms of Colic are mentioned by Authors but our limits are too short to admit of their consideration.

The treatment of the various forms of Colic is in some respects similar. The indications in the flatulent Colic are to discharge the flatus and relieve the pain. To fulfil the first indication carminative draughts may be given, and in mild cases almost any antispasmodic gives relief. the second indication is fulfilled by external irritants and warmth to the bowels and extremities. and emollient injections or of simple warm water may be thrown into the rectum, the bowels should be evacuated if possible, they will often be so by the injections, if not, the irritability of the stomach may be allayed and cathartic medicines given - Castor Oil with a few

drops of Laudanum will often stay on the Stomach and prove effectual. The pulse must be attended to, and if symptoms of inflammation intervene, venesection must be employed.

This treatment with slight variations according to the different indications, is applicable to the other forms of Colic.

In Illustration of the benefit of acting suddenly on the dermoid system in this disease, I will relate a case.

An acquaintance of mine was seized with severe pain in the abdomen which increased during the day, and became exceedingly severe till near the usual hour of retiring to rest. He had taken during the day at his own suggestion cathartic pills in considerable quantity, with a view of moving the bowels and thus relieving the pain. but instead of relieving it had increased the pain, the patient lay writhing on the bed, the friends apprensive of a fatal termination, while in this state I was called upon to give relief. and caused a bag of hops of suitable size to be made; this was immersed in a vessel of boiling water and immediately withdrawn, and the surplus water allowed to drip away. A saturated solution of Camphor in Alcohol was poured on one side of this, and the same to the abdomen. a favorable change immediately ensued. the pain subsided in about 10 or 15 minutes, and the cure was complete. the operation of the pills which had been taken was manifestly injurious.

Th.

This treatment illustrates the sympathy known to exist between the dermoid system and the alimentary canal, therefore as in these diseases the regular peristaltic action of the muscular coat is suspended, or spasmodically contracted, we should infer the utility of epidermic applications in these cases, at any rate the efficacy of sudden impressions made on the surface of the abdomen by a stimulant of a peculiar kind is evinced by the above case.

E. E. Gordon.

XIII.

Dissertation
on
The Causes of Disease.

By

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On the Causes of Disease

by

Asahel B. Hull - Gouverneur N.Y.

On the Causes of Disease.

The causes of disease may be divided into proximate and remote.

II. The proximate or physical cause of every disease, I shall define to be, that peculiar and specific condition of a part or the whole of the living solids which immediately gives rise to the morbid phenomena to which in the aggregate we apply the name of the disease. From the above definition it is evident that there must be just as many different and distinct proximate ~~pathological~~ causes of disease as there are different and distinct diseases; for, since all the functions of the living body are performed solely and exclusively in the living solids, it manifestly follows that these functions can only vary as the peculiar state or condition of the living solids upon which they depend varies; unless indeed we deny the principle that the same effects argue the the same causes and different effects, different causes. It is indeed true, that certain phenomena are apparently common to different and distinct diseases. In this case we must ascribe these particular symptoms to the same proximate cause, for it is unphilosophical to assign

different and distinct causes to account for the same effect unless such causes are known to exist. But this fact need cause no confusion if we bear in mind that the proximate cause of the disease refers to the abnormal condition of all the parts of the living solids taken in the aggregate which present the morbid phenomena to which we apply the name of the disease and not to the disturbed condition of a part of them taken separately from the rest.

As to the precise nature of the proximate causes of disease writers have indulged in various speculations, but we are I apprehend, in the present state of our knowledge most profoundly ignorant; and more than this I see no reason to believe that it will ever be otherwise. The subject seems to be entirely beyond the reach of successful investigation; and even if we were in the possession of perfect knowledge on this subject, it is by no means certain that it would advance us at all either in the obviation or in the cure of disease, for we should then be under the necessity, as we now are, of determining the action of all medicinal agents on the system by observation and experiment. There can be no a priori reasoning here, all

depends on the patient investigation of the effects of medicines.

II. The remote causes of disease may be defined to be all those circumstances, agencies or influencies which precede and stand in the relation of cause to that peculiar and specific condition of the living solids which has been defined above to be the proximate cause.

This class of causes may be divided into praegnominal or predisposing, prochatarctic or exciting and sole remote causes.

Praegnominal + prochatarctic are correlative terms, the one always implying the other.

The praegnominal or predisposing cause of every disease is that which determines the peculiar nature + character of the disease and without which the disease cannot exist.

The peculiar condition of the system which the action of the predisposing cause produces, inclining it to take on a particular kind of diseased action, is called the predisposition; and the exciting cause seems to convert the predisposition into the proximate cause of the particular disease to which there was a predisposition

but the procatarctic cause never of itself produces disease, the intervention of the exciting cause always being necessary to the existence of the disease.

Since, according to the above definition the procatarctic or predisposing cause of every disease is that which determines the peculiar nature and character of the disease and without which it cannot exist, it follows that there must be at least as many different and distinct procatarctic or predisposing causes of disease as there are different and distinct diseases that require such a cause.

On the precise nature of most predisposing causes much difference of opinion has existed among medical writers and it must be acknowledged that, in most cases, the subject is involved in great obscurity and that very little success has hitherto attended its investigation, and furthermore it is to be feared that it will continue to be a field in which few laurels will be won however sharp may be the contest; but as to the fact of the existence of such causes, no intelligent physician I believe entertains a doubt.

The predisposing causes of disease may be conveniently arranged into four different and

tolerably distinct classes, viz. 1 epidemic. 2. endemic, 3 congenital and 4 accidental. I use the term accidental here not because it expresses clearly the idea I wish to convey but for want of a better. I mean to express by it all those predisposing causes not included under epidemic, endemic and congenital.

Epidemic predisposing causes or Epidemic influences as they are commonly called are the most wide-spreading of all known causes of disease. They are in some cases confined to no particular country or climate, but pervade in no very long time, a great portion of the globe as for example the predisposing cause of Epidemic Catarrh and Asiatic Cholera, though in most cases a particular epidemic influence is confined to a particular climate or country or even to a section of a country and not unfrequently to a very small section as a town or a city. The influence of these causes is usually transient, existing in a particular locality only for a few months & frequently only for a few weeks. The predisposing causes of epidemics act with a much greater degree of energy or intensity at some seasons than at others and upon some individuals than

upon others. At one season, for instance there will be an epidemic influence in so slight a degree that very few cases of the disease will occur and these requiring the most powerful exciting causes for their production; while at another season the predisposition is so strong that the slightest exciting cause is sufficient to kindle the disease into action. Again, during the prevalence of an epidemic influence to a moderate degree certain individuals by a very slight irregularity suffer an attack of the disease, while others require very powerful exciting causes in order to produce in them the disease. To what this difference of susceptibility in different individuals is owing we cannot in the present state of our knowledge always determine, though it is generally, and I believe correctly, supposed that whatever weakens the powers of life renders the system less able to resist the morbid influence, so that those of broken constitutions are usually more susceptible to a given epidemic influence than those in whom all the vital functions are performed with vigor and regularity; but this does not always appear to be the case for in some epidemics the feeble and debilitated seem to be

less liable to an attack of the disease than the more robust and healthy. Those for example who have long indulged in the habitual and excessive use of alcoholic liquors, whose constitutions have been thereby much impaired and in whom the powers of life have been much enfeebled, seem to enjoy a perfect immunity from the attack of certain epidemics, while their more temperate neighbors are the earliest victims and suffer under the disease in its most malignant form.

As to the peculiar nature and source of epidemic influence, much speculation has been indulged in and many hypothesis formed but with very little success. I approach either in the act of healing or in the discovery of truth.

Indicating of the presence of an epidemic influence. There are certain phenomina that sometimes indicate the presence of an epidemic influence even before the disease makes its appearance. It not unfrequently happens that on the approach of an epidemic, most of the common forms of disease disappear, physicians are comparatively at leisure and the re-

mark is frequently made, that it is a time of very unusual health, but the experienced practitioner is aware that this apparent health is indicative of the presence of some powerful influence that, by its action on the system, and thus, renders the more common forms of disease and that it will probably soon throw off its mask and show itself in its true character, though, at the time, he may be utterly unable to say with any degree of certainty what will be the character of the coming epidemic. As the epidemic influence becomes more intense the few cases of common disease that do occur, present new and peculiar forms, attended with such unusual symptoms that it is sufficient to excite the attention of a class in Nosology. When the precipitating cause acts with the highest degree of energy a great proportion of the inhabitants of the infected district have what are commonly called the premonitory symptoms of the disease. This was remarkably the case in the year 1832 during the prevalence of the Asiatic cholera in our own country. During

this period almost every individual in in those parts of the country where the disease prevailed experienced these premonitory symptoms. Under such circumstances great caution is necessary to avoid all exciting causes even the slightest in order to escape the disease.

Endemic predisposing Causes or influences. The endemic predisposing causes of disease are limited to particular localities and are usually much more permanent in their influence than epidemic causes. As is the case with regard to epidemic influences of which we are in the present state of our knowledge utterly ignorant as to the precise nature of endemic influence. The endemic influence or predisposing cause of Intermittent fever is perhaps the most common and prominent of this class of causes especially in our own country, and has elicited much controversy among writers on Etiology but still we seem to be no nearer an accurate knowledge of the subject than before, except perhaps that most physi-

cians are convinced that they know nothing with regard to the physical nature of this cause All we know about it is, that it is in some way necessarily connected with the presence of water or rather that the presence of water is necessarily connect with it, for it is never found except in those localities where water or moisture is present, but it is by no means always present in the vicinity of water for in ninety nine cases out of a hundred such localities are entirely free from Intermittents. This endemic influence is more commonly found in the vicinity of Swamps or morasses but not exclusively so for it sometimes exists in the vicinity of Streams of pure water where there are no swamps in the neighborhood and this fact alone proves beyond a doubt that the predisposing cause of Intermittent is not necessarily connected at all with Marshes or morasses. From the fact that Intermittent usually occurs in the vicinity of Marshes, the predisposing cause has commonly been called Marsh Miasma or miasmata. Malaria and Marsh influence, upon

the hypothesis that it consists of effluvia or exhalations peculiar to marshes becoming mingled with the air that we breathe, through the medium of respiration or otherwise, it is received into the system and becomes the predisposing cause of the disease. Of this however there does not seem to be sufficient evidence; on the contrary there seems to be positive proof against this hypothesis as above stated. Another curious fact in relation to this subject is that Intermittent often having prevailed for a long period of time in a particular locality will entirely disappear for a series of years and then recur again, while no material change has taken place in the surface of the country that can reasonably account for the disappearance and reappearance of the disease on any hypothesis and much less on the particular hypothesis that the predisposing cause is Marsh effluvia

Congenital predisposing causes.

These consist in a peculiar influence upon the living solids exerted by parents upon

their children through the medium of reproduction. This class of cases is important to be understood by the practitioner since this knowledge might have an important bearing on practice but especially on the prognosis. There are some singular facts connected with the congenital predisposing causes of disease. One of the parents of a family of children for example may be the subject of a hereditary disease which will be communicated to a part of the children while the rest shall be apparently perfectly free from all predisposition or all of his immediate descendants may be entirely free from the disease while it will be developed in their children thus passing entirely over one generation. In this latter case it is apparent that the immediate descendants of the affected parent, though apparently perfectly healthy, were in some way affected or influenced by the diseased condition of the parent, else they could not have communicated the disease to their children, but whether this

state or condition should be called predisposition or not may admit of doubt for that state of the system can hardly be called predisposition which never suggests any tendency to result in disease.

There are certain diseases the predisposition to which may be either hereditary or acquired and consequently the predisposing cause may be either congenital or accidental. In all such cases the predisposition, when not acquired, is of course very liable to be propigated. Gout and Rheumatism are examples of this class of diseases.

Accidental predisposing causes.

These include all the predisposing causes of disease not embraced in the preceding as for example the predisposing cause of Gout, when the predisposition is acquired or when the predisposition is not hereditary This class of predisposing causes is comparatively limited and more easily investigated & determined than most others. Thus the habitual, long continued and free use of Alcoholic

liquors is generally admitted I believe to be the predisposing cause of Delirium tremens while high living and the free use of vinous liquors in connection with a life of indolence is considered by most to be the predisposing cause of Gout where the predisposition is not hereditary & where it is hereditary to heighten the predisposition or render it more intense.

Prochatarctic or exciting causes of disease. These causes are all embraced in transient, fluctuating and considerable irregularities, excesses and deficiencies of what are commonly called the eight non-naturals, viz. 1 Sleeping and watching. 2 Exercise and rest. 3 Affections & passions of the mind. 4 Secretions and excretions. 5 Eating, drinking & abstinence 6 Exposure to vicissitudes or alternations of temperatures. These six were all that the ancients considered as non-naturals, but to these may be added two others, viz. 7 Exposure to vicissitudes or alternations of drought and moisture and 8 Exposure to the effluvia or exhalations arising from the living animal body under certain

circumstances, to the effluvia arising from dead and decomposing animal & vegitable matter and also to the vapors or gases arising from more simple chimical action.
To these I think should be added certain other agents as mechanical violence and the inhalation of the dust of various solids.

With regard to all those diseases that require a progrnimal or predisposing cause, all the above powers, influencies or agencies operate in the same manner, that is, they always stand in the relation of proximate or exciting causes and do not at all determine the peculiar nature & character of the disease in other words they never sustain the relation of predisposing cause which alone determins the specific character of the disease. All the above exciting causes as has been already observed seem to convert the predisposition into the proximate cause.

Sole remote causes of disease.
Under this head I include the remote causes of all those diseases that do not require

a predisposing or predisposing cause, as for example the specific virus of certain contagious diseases, the venom of certain reptiles and insects, the virus of certain rabid animals, the effluvia arising from certain plants as some species of the Rhus & the Anacardium occidentale, in short this class of causes embraces all physical and moral agencies that are capable of sustaining the relation of cause to any disease that does not require a predisposing cause.

It is, I am inclined to think, from indigested views on the subject of causes, in part at least, that so much difference of opinion exists as to the contagious nature of certain diseases

In discussing the question of contagion we ought diligently to inquire as to the existence or non-existence of a predisposition & if this is found to exist exciting causes are only wanting to kindle the disease into action & it is unphilosophical to assign contagion as a cause here, for we have causes enough to account for the existence of the disease without it. Here it should be borne in mind that the effluvia arising from the

bodies of those laboring under certain epidemic diseases is one of the most powerful exciting causes to that particular disease; and this fact has undoubtedly led some to consider certain diseases contagious which others consider only as epidemic.

XIV.

Dissertation
on
The Importance of a correct Diagnosis.

By
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Candidate for the Degree of Doctor in Medicine.

On the Importance of a Correct Diagnosis.

Gentlemen:

In presenting a thesis of this character, I am aware, that it is much easier to write critically, than to form correct clinical opinions. However, I hope to receive benefit in subsequent life from this exercise.

1st I shall define the word Diagnosis; 2nd Consider the sources or means of Diagnosis; 3d Speak of the importance of a correct Diagnosis; 4th Notice some errors in Diagnosis, which have fallen under my own observation.

Our word diagnosis is derived from the Greek, diagnosco, which means "to know through," to discern, to distinguish, or discriminate. In medicine, it is that by which we distinguish diseases, & their symptoms. It implies discrimination between characteristic or pathognomonic symptoms, & such as are common to several or many diseases. Hence, diagnostic knowledge, so to speak, enables us to distinguish one disease from another.

The sources, or means of diagnosis, are to be found in the history of the disease, - the symptoms presented, - the effect of remedies, & in morbid anatomy.

In the history, we ascertain the cause of the disease, whether it is constitutional, involving hereditary predisposition, previous attacks, &c., or whether it be from external causes which induce or modify disease,- such as,- prevailing epidemics,- state of the weather,- season of the year,- contagion, or infection,- & peculiarity of situation, subjecting to endemic diseases. We also learn the habits of the patient, whether active, or sedentary,- temperate, or intemperate. The progress of the disease we notice, whether acute, or chronic, strongly marked, or insidious; & we trace the transitions from simple derangement of functions to disorder or alteration of structure. We observe the complications of disease, & the superinductions of one upon another.

But the symptoms[H] undoubtedly afford us the principal means of diagnosis. By their form & violence, the order in which they appear, & the manner in which they are united or conjoined, we are assisted in forming our judgment of the case. And here is a vast field for clinical observation. In studying these, we notice more

[H] Authors divide these into vital or physiological, functional or general, and physical signs or symptoms.

particularly, the appearance of the countenance, the state of the respiration & circulation, the attitude of the patient, the pain produced, the appearance of the tongue, & the surface generally, & we inquire diligently respecting the manner in which the different systems perform their functions. Local inflammations are sometimes unnoticed by the practitioner, & not felt by the patient while at perfect rest. What medical man has not discovered local inflammation of the abdomen, by passing his hand over that region, when the replies of the patient to his interrogatories would have led him to a contrary conclusion? Pressure over inflamed parts always gives uneasiness, while this is not the case in other painful conditions of the organs.

In the effects of remedies, blood-letting especially demands our attention, the more immediate effects of which assist us in forming a diagnosis. It is a well established fact in physic, that different diseases induce in the constitution different powers or susceptibilities in regard to the effects of loss of blood. Place a patient in the erect posture, & bleed to incipient syncope. & the quantity of blood from a

the orifice will be a pretty sure criterion by which we may judge of the protective influence of the disease in one class of cases, & in the other of its power to induce a susceptibility to the loss of blood. Thus in apoplexy, in inflammation of the serous membranes, & of the parenchyma of organs, we observe great tolerance of loss of blood; while in dyspepsia, hysteria, & chlorosis, the susceptibility to syncope from loss of blood is very great. It is safe to say, that in inflammation we may bleed freely, but in irritation, we must bleed cautiously. In cases of a mixed character, partaking of the nature both of inflammation & irritation, much discrimination is requisite, & the effect of blood-letting should be narrowly watched. As the injudicious use of certain remedies, as blood-letting, mercury, digitalis, purgatives, &c., is productive of serious consequences, the physician should be able to detect symptoms thus produced, & should meet them with appropriate therapeutical agents.

In morbid anatomy, we are presented with a more sure basis of diagnosis. Here is something tangible. Indeed, the investigations in this department of medicine for the last twenty years,

have contributed very much to elevate the healing art to the rank of a science. We have a patient, for instance, affected with abdominal inflammation. the seat of which we can not exactly discover. The patient dies. On post mortem examination, we find the mucous membrane of the intestines presenting the various stages of inflammation, especially in the region of the cæcum. So of other diseases. But I need not specify. Suffice it to say, that every physician should understand the peculiar alterations of each of the organs, that he should improve every opportunity to add to his knowledge of morbid anatomy, by post mortem examinations. & that this knowledge by correct association, should serve as a guide in his pathological researches, & thus be made available in ascertaining the existence of disease in the living body.# Having considered severally the sources of diagnosis. I proceed to the third division of my subject, which is,—

The importance of a correct diagnosis. And here a wide field of remark is open to me.

The young physician who does this, & who has no prominent defect in his character, will honor his profession, & diminish the sum total of human woe.

"The diagnosis of disease" constitutes the first part of the duty of the physician in his visits to the sick. "Hence an error here, a wrong step here will lead directly to disastrous results." — Says Marshall Hall. "The foundation of a judicious & effectual treatment of disease depends on a correct understanding of its diagnosis." Ann. R. Stokes remarks, that "the more accurate & extensive is diagnosis, the more certain & available is the practice of medicine," & he calls diagnosis "the guide & master key to sound treatment." I need not multiply quotations. It must indeed be self-evident, that, until we have some correct ideas of the nature of a disease, we cannot successfully attempt its removal. Our prescriptions will necessarily be made at random, & our practice will be strictly empirical. Moreover, in so doing, we commit moral wrong, & render ourselves obnoxious to the condemnation of Him, who is the Author of all life. What would be thought of the general who should call his army into the field without having previously taken all possible measures to ascertain the strength of his enemy, & without endeavoring to make his attack at the most vulnerable point? Surely, gentlemen, the reprobation of an enlightened community would fall upon his head. But to be more strictly medical.

Suppose a physician is called to a patient. At first sight he notices the hurried respiration, there is some cough & restlessness, the bowels are confined, the skin hot & dry, & the pulse somewhat rapid & small. He concludes the disease is pneumonia. Accordingly, he bleeds the patient freely, at the arm, & gives antimony. Soon, however, symptoms of acute gastritis appear, & in the second stage the skin becomes cold & pale, delirium supervenes, & he dies. Here was gastritis in the commencement. The hurried respiration, cough, & restlessness, were sympathetic of the gastric irritability. There may have been intolerable thirst, desire for cooling drinks, epigastric tenderness, & even nausea & vomiting. But he overlooks these symptoms, & makes a false diagnosis, & his practice is in keeping with it. Instead of general depletion, leeches, or the cupping glasses should have been applied upon the stomach, & instead of antimony, cold & acidulated drinks should have been administered. I would not, however, condemn general bleeding in all cases of acute gastritis, especially when the pulse is full & hard, & the constitution robust. Take another case. A person of nervous temperament, & regular habits, has violent pain in his head, he vomits

occasionally, his pulse is a little quickened, & his skin is moist. A doctor is called, & he institutes prompt depletory measures, apprehending inflammation of the brain. But his means are not successful. Reason enough! The pain in the head is sympathetic of a diseased state of the primæ viæ, & his measures should have been directed to those passages as the seat of the primary disease, upon the removal of which, the pain in the head would cease.

Again, here is a case of delirium tremens, by which the patient has been attacked after a violent debauch. His excess in spirituous potations has induced inflammation of the stomach, & general irritability. But the medical attendant mistakes the nature of the disease, & gives opium freely, & renews the stimulation with brandy, &c.. But his medicines only add to the already phlogosed state of the stomach, & the patient dies a raving maniac. This case should have been treated by general depletion, if the state of the pulse & constitution would warrant; if not, by leeching or cupping over the epigastrium, & frequent small doses of calomel until it operated on the bowels freely.

Again, a man addicted to the use of ardent

spirits, may have an attack of delirium tremens from the sudden abstraction of his accustomed stimulus. He shows an anxious expression of countinance, & his pulse is frequent but small & compressible. It is a pulse of irritability. Here opium may be given so as to procure sleep, & wine say stimulants. Thus a diagnosis in this disease is to be formed differently, & different modes of treatment are to be pursued. But not to dwell longer on derangements of the alimentary canal, though I might speak of the Protean forms of jaundice, some of which depend on gastritis, duodenitis, &c. while others may be referred to disordered biliary secretion as their primary cause, the bile sometimes being secreted in too large a quantity, from superexcitation of the liver; & in other cases deficient in quantity, from paralysis or torpor of that organ; & in other cases still, we may have jaundice from biliary calculi, & even from spasms affecting the gall-ducts. I say, not to dwell on these, though our diagnosis, & consequent treatment must be different in the various cases, I proceed to notice other diseases in further illustration of my subject.

Take a case of disease of the hip-joint. Here the pain & uneasiness are generally referred to the knee,

(or a little above, invariably,) especially in the commencement of the complaint. But a medical man with half an eye, will perceive, that if treatment be exclusively directed to this part, it must be useless. Hence, the importance of a correct diagnosis. Local depletion, with counter irritation, by means of blisters, issues, or setons, might, if applied early, arrest the disease. Again, the early symptoms of hydrocephalus in children may so far resemble those produced by intestinal worms that the practitioner may draw a false diagnosis. There may be uneasy & disturbed sleep with grinding of the teeth, & a variable or irritable temper in both. Hence the importance of discrimination, & a close inspection of all the symptoms, in order that the treatment may be successful. In suppression of urine, the head is very soon sympathetically affected. But suppose in a case of this kind, the cause of the pain in the head, & perhaps delirium, is overlooked, & the treatment directed to the removal of the most prominent symptoms, will it be judicious & beneficial? I think not. But I have probably dwelt sufficiently long on this part of my subject, & reserving a few sensual remarks, I proceed to my last division, which is—

Errors in diagnosis. In the winter of 1840-1,

a man 50 years of age, of rather plethoric habit, & who had previously enjoyed excellent health, was attacked with pneumonia. A physician was immediately called. He found his patient laboring under severe & fixed pain in the left side of the thorax, with other symptoms indicating the commencement of inflammation of the lungs. He said he thought "the pain might shift to some other spot," & did not bleed, but gave palliative medicines. Soon strong inflammatory action was set up, & in one week the man died; & on post mortem examination, the lungs were found in a state of complete engorgement, with portions hepatized. Here was an error in diagnosis in the commencement, the very time to institute thorough antiphlogistic treatment. Take another case. A child of two years had one of the bones of the fore-arm dislocated at the elbow while at play with her father. A surgeon examined the arm, & said the protuberance was caused by a bony tumor, & prescribed a volatile liniment! The next day, the mother reduced the bone, & thus ended the matter."

† We are told of the consultation of two or more physicians inspecting a case which they pronounced to be an effusion into

I might mention many other cases in the practice of medicine surgery, & midwifery, but these will suffice. The subject is indeed a fruitful one, but with a few remarks, I shall close.

I cannot of course speak from extended experience, but it is my firm belief, that nearly all the errors in the treatment of disease, are directly traceable to errors in diagnosis. Our materia medica is ample, affording us therapeutical agents in profusion, every kingdom in nature is made to contribute to our means of combatting disease. And why, I ask, is gastritis mistaken for pneumonia, & inflammation of the brain! And why is this with few exceptions, no discrimination in the treatment of delirium tremens? And why is the treatment directed to the knee, in a disease of the hip? (Perhaps, however, blisters to the knee might act as counter-irritants.) And in sympathetic pain in the head from suppression of urine, why is the cause overlooked? I may be told that

the cavity of the abdomen, & accordingly advised, to the operation of paracentesis abdominis. But the opinion of another medical man was had, who thought the disease was the very natural one of pregnancy, which was shortly after verified by the birth of a child.

pathognomonic symptoms are not always present. I grant this may be the case.† But you, gentlemen, will acknowledge, that to a considerable extent, there is a lack of mental application, & rigid self-education on the part of medical men. Could I speak to all medical students, I would say in the language of Dr. Rush, – "Observe, – read, – think."

In conclusion, I remark, if in future life I succeed in the practice of medicine, much will be due, under God, to my preceptors in study, & much to the Professors in this Institution.

Roswell Hawley.

New Haven, Jan. 1842. Farmington, Conn.

† On diseases of internal organs supervening some injuries, & surgical operations, more especially.

XV.

Dissertation

on

The Diagnostics between Phlogosis Phlegmonea and Phlogosis Erythematica.

By

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Of New Haven, Connecticut.

Diagnostics between

Phlogosis Phlegmonea & Phlogosis Erythematica.

By some writers all inflammation appears to be regarded as a perfect unity produced by the same causes, subject to the same laws, & requiring the same treatment. Some practitioners not only consider all inflammation a unity as above, but all fevers a unity, & indeed have serious doubts whether inflammation & fever are not one & the same thing. Others however, make two great divisions of the subject of inflammation into Phlegmonous & Erysipelatous, and their descriptions of the two are in general well founded. Some go still further & declare that not only the above distinctions should be made, but that for a clear and practical view of the subject we should consider inflammation as embracing several other distinct & prominent species. This view appears to be best supported by facts & observations. As proof of which it may not be deemed amiss to quote a few remarks from Mr. Hunter on this subject. He says (p. 253.) "The term or idea of inflammation may be too general, yet it is probable that it may form a genus in which there are is a number of species, or it may be reckoned a species containing several varieties." The question then arises, what shall we call them, species or varieties? In order to settle this

question, we must understand the true meaning of the terms. A genus comprehends one or several species. In order for several species to form a genus, they must each have distinct & well marked peculiarities, they should be distinct in their beginning, progress & termination, & hence not run into each other in any stage of their course. Varieties on the other hand should not have such strongly marked peculiarities, they may be founded on merely accidental circumstances, & sometimes even on the exciting causes; they may also run into each other, so that the same attack of a disease may at different stages have all of the varieties. Now which of these definitions will apply to the case before us? are the different sorts of inflam species or mere varieties? do they ever change into each other? for instance, does the inflam, by which an acute attack of Gout or Rheumatism is characterized, ever become the same with that of a Phlegmon or common boil? Certainly not; then these are true & proper species. In regard to this point Mr. Hunter is perfectly non-committal, he calls them neither species nor varieties, but says that "the different inflammations may be comprehended in five divisions," though in the details of each, he in reality mentions a sixth. In another place however, in commenting upon the doctrine of Boerhaave, as to the cause of inflam being found in an obstruction of the minute vessels, he says, "This was certainly too confined an idea of all the causes of inflammation,

& reduced all inflammation to one species", clearly intimating that he considered the difference sufficiently great to warrant the appellation of species.

The term inflammation is one which has long been used in a generic sense with reference to an extensive number of diseases. It is a term which cannot be defined in a few words, indeed it cannot be defined at all, since it is impossible to mention any group of symptoms or peculiarities, which are invariably present in every case of inflam. By this term the ancients intended to express the following aggregate of symptoms, viz, tumor, rubor, calor, dolor, or swelling, redness, heat & pain. It is however not always used in so limited a sense. — Some make it necessary to the definition of inflam, that the above symptoms be accompanied by fever; but this is manifestly absurd, since in the greater part of merely topical & local inflammations there is no derangement of the constitution at all.

We read about specific inflammations in distinction from Phlegmonous, or as it is sometimes called common inflammation. But if there are specific differences existing between other inflammations in distinction from each other, there are equally prominent & specific peculiarities between Phlegmonous & other inflammations; then this is as much a specific inflammation as any other.

Having premised thus much, I shall now proceed to the more immediate object of this dissertation, viz, to point out the diagnostics between the two species of Phlogosis, P. Phlegmonea & P. Erythematica. In order to this I shall 1st=

give my reasons for the terms used with the etymological signification of each. 2ly I shall in immediate connection give a description of each species, & 3ly conclude with pointing out the means of discrimination, or in other words the diagnostics.

1. Phlogosis Phlegmonea.

The inflammation of which I am now to speak is often called healthy inflam, but with what propriety I am at a loss to discover. If the functions of life are in a diseased condition, they certainly are not in a healthy condition; if a particular part of the system is diseased, that part at least is not healthy. The terms health & disease are opposite, & the existence of the one implies the non-existence of the other. A healthy & diseased condition of the system can no more exist at the same time, than can a medicinal agent increase & reduce the strength of the vital energies at the same time, Dr. Brown to the contrary notwithstanding. It may be objected to this, that after an injury for instance, this peculiar inflam ordinarily takes place, & then tends to restore the parts to a healthy condition. Of this there is no doubt; indeed were it not that the inflam followed, the patient might die from the effects of the injury. But is the inflam itself any more healthy for this? A person is seized with an acute attack of Gout, his sufferings for a time are great; at length by proper medication, (with patience & flannel if you please) he recovers, his general health is much better than before the attack. Are we then to call this a healthy Gout? certainly not. neither should we call any other disease a healthy disease. — Mr. Hunter & others use

the term adhesive to denote this specific inflam, but adhesion is properly a termination of the inflam, & not a characteristic of the inflam itself; & besides, the formation of adhesions is not peculiar to this inflammation. It is also frequently called common inflammation, & with somewhat more propriety, though it may be questioned whether this specific inflam is really any more common than some other specific inflammation.

The term Phlegmonous however, which is used by many writers, is in every point of view preferable to any other, that to my knowledge has been employed. It has the merit of being scientific, which to an educated mind is a point of no little value; it is also easy of pronunciation (& none could be more so) & this to the uneducated is certainly a recommendation. It is legitimately derived from the Greek φλεγμονή-ῆς, the thema of which is φλέγω, to burn; φλεγμονή or phlegmon being a prominent form in which the symptoms of this specific inflammation are well manifested or characterized. The term Phlogosis is the Greek φλόγωσις-εως, & denotes simply, inflammation.

To proceed then with the description of Phlegmonous inflammation, as it is ordinarily manifested. The four symptoms enumerated by all writers both ancient & modern upon the subject of inflammation in general, may probably with more propriety be applied to this than to any other specific inflammation. They are as follows, tumor, rubor, calor, dolor, or swelling, redness, heat & pain. When the inflam is superficial, there is usually in addition to these, soreness & hardness.

It is probable that in every case of Phlegmonous inflammation, these symptoms are always present to a greater or less extent. They will admit however of a very great range as respects their degree of severity. In the superficial soft parts of the body, these symptoms, ceteris paribus, are in general more prominent than in those which are deeply seated & of a firmer texture. In inflam of the internal parts also, these symptoms undoubtedly exist, though they may not all be cognizable to the physician. For diagnosis in these cases, we are to look to the manner in which the function of the particular organ is performed, & we are also to be guided by the state of the constitution, for it is probable that the constitution is always affected when there is any considerable internal inflammation.

1. The first of the symptoms mentioned is swelling. This is said to be owing to an increased quantity of blood in the vessels of the part, & also to the effusion of coagulable lymph. In order that the quantity of blood should be increased, it is necessary that the blood vessels become enlarged or distended, or that the return of blood by the veins be in a certain measure prevented. In order also that the effusion of coagulable lymph should cause an enlargement of the part, the function of absorption must be interrupted, which is probably always the case in inflammation. — 2. Redness. The color of the part varies at different stages of the inflammation. In the early stages of Phlegmonous inflammation, the color is light red or scarlet, while towards suppuration it changes to more of a crimson hue. This, ie color or redness, is undoubtedly owing to an increased quantity of blood in the inflamed part. Some suppose that the coagulable lymph becomes vascular,

& that new vessels are formed, to which is owing the increased redness. That this sometimes takes place, I think there can be no doubt, but that it always occurs is more than questionable.

3. The third symptom alone mentioned, pain, is supposed to be owing to several causes, a first to the enlargement of the vessels of the part. This enlargement, producing distention & pressure, doubtless causes much irritation of the nerves; & more than this, the nerves themselves are involved in the inflammation, their structure is broken up & their texture destroyed. This symptom is also very various at different stages & in different cases. In inflammation of highly organized parts the pain & irritation is much greater than in those which are not so highly organized; though parts which are comparatively insensible in a state of health, often become when inflamed exquisitely sensitive. In the early stages of Phlegmonous inflammation the pain is usually of a lancinating sort, but just before suppuration it is throbbing. This is one of the most prominent diagnostics. — 4. Judging from the sensations of the patient himself, we would infer that the heat of the parts inflamed was very much increased beyond the natural temperature of the body; but from numerous & probably accurate observations by Mr. Hunter & others we are informed that the real increase in temperature beyond that of internal parts is generally very slight, & indeed that in many cases it is not increased at all. This, to the patient, would seem almost absurd, but, as Hudibras says, "no argument like matter of fact is", & in this case the fact appears to be pretty well established.

The alone symptoms may in the aggregate be very slight, & when so there is no derangement of the constitution, & the patient can attend without any difficulty to his ordinary avocations. In many cases however, they are very severe, the constitution is involved, the patient is under the necessity of being confined to his bed, & of undergoing a thorough course of medication. Phlegmonous inflammation may be either entonic, or atonic, or neither. As a general rule, the more severe & violent the alone symptoms are, the more entonic is the inflammation, & vice versa. But the exceptions are numerous; indeed the most severe cases are often the most atonic. Probably the great majority of cases are attended with neither entony nor atony, i.e. with no derangement of the constitution, manifestedly by a derangement of the circulating system & other symptoms of fever. In Phlegmonous inflam of the internal organs, there is generally more or less fever accompanying it; this fever may be idiopathic & a primary part of the disease, or it may be merely symptomatic & secondary. This is in my opinion important for the diagnosis if not for the treatment. In entonic cases the force & fullness of the pulse will be increased; if there is also hardness, this heightens the diagnostics. The frequency of the pulse is not very great, ordinarily not more than 110-112 beats in a minute. There will be great irritation in various parts of the system, the secretions from the skin & liver will be diminished, there will be pain in the head with great thirst, attended sometimes with violent delirium. There is also a congestion of the capillaries, indicated by a general fullness of the body. In atonic cases some of the above symptoms are present, but there is atony of the circulating system, there is a weak & easily compressible, though often full pulse, it is generally very much increased in frequency, & is often quick & hard.

Phlegmonous inflammation affects every texture of the human body, except the cuticle & nails; probably the bones are not to be excepted, though inflam of the bones generally occurs in strumous subjects; Even the hair according to the Polish writers is not excepted. This inflammation is not confined to the texture in which it begins, but readily passes to all the textures in the immediate vicinity. Some authors pretend to divide inflammation into species, according to the nature of the part inflamed. The inflammation that affects the skin is called Erysipelatous, when the cellular substance is inflamed, this is Phlegmonous; when the mucous membrane is affected, some other name is applied, & so on through all the textures. In regard to this point it may be sufficient to quote a single sentence from Mr. Hunter on the subject. He says, if this were true "we should soon be made acquainted with all the different inflammations in the same person at the same time, & even in the same wound. For instance, in an amputation of a leg, where we cut through the skin, cellular membrane, muscle, tendon, periosteum, bone & marrow, the skin should give us the inflammation of its kind, the cellular membrane of its kind, the muscles of theirs, the tendons of theirs, the periosteum, bone, marrow, etc, of theirs, but we find it is the same inflammation in them all." Nevertheless wherever this inflammation is seated, it preserves its peculiar & specific character. Phlegmonous inflammation does not pass into the inflammation that characterizes Gout & Rheumatism, neither does it change into that peculiar inflam, which is appropriately called Scrofulous or Strumous.

Phlegmonous inflammation however may supervene upon a scrofulous constitution, but this is not to be considered as scrofulous inflammation. Sometimes the inflammation will be of a mixed character, when it is difficult to determine to which species it most appropriately belongs.

Phlegmonous inflammation may be considered as terminating in five different ways, which I shall simply mention & briefly explain, not pretending to go into the details. They are 1st resolution, by which is intended a gradual subsidence of all the symptoms & a return of the part to its natural & healthy state. This is the most common & by far the most desirable of all the terminations of inflammation. — 2d. Suppuration. When suppuration is about to take place, the symptoms will for a time be aggravated rather than diminished, the color becomes of a darker hue, the heat of the part is increased (or at least there is the sensation of increased heat,) the pain changes from a lancinating to more of a throbbing character, & the tumor is increased in size, becomes soft & somewhat more prominent in the middle or towards its most depending part. Soon after this the symptoms begin to diminish, & a fluctuation is perceived under the fingers; suppuration is now established. Presently the abscess bursts, or is opened by the knife & the contents of the tumor are discharged. In some cases however the purulent matter is absorbed & no external lesion takes place; the termination may nevertheless be regarded the same as though an ulcer was actually formed. — If previous to the occurrence of suppuration any constitutional symptoms were present, if there existed any febrile symptoms,

either of the entonic or phlogistic, or of the atonic character, no matter whether the fever be idiopathic or primary with the topical affection, or symptomatic & merely secondary, at the moment suppuration is established, the fever becomes in all cases changed to Hectic. We read of suppurative & ulcerative inflammation, but why not call them suppuration & ulceration! during these stages the inflam strictly is over, & they are merely secondary effects of it. Mr. Hunter observes, "Inflammation is capable of producing three different effects, adhesion, suppuration & ulceration", & if these are effects of the inflammation, can they I would ask be the inflammation itself? The former, ie, adhesion, undoubtedly takes place during the progress of the inflam, & the inflam attended by it may with propriety be called adhesive; the term however must not be understood in a specific sense, but only to mark a certain stage of some specific, say Phlegmonous inflammation. — The 3d termination of Phlegmonous inflammation that I shall mention is, an <u>excretion</u> of <u>coagulable lymph</u> & consequent adhesion. This is perhaps synonymous with union by the first intention, & is the same that takes place when the cut surfaces of a wound after being brought together adhere. The 4th & worst, though probably the least frequent form in which Phlegmonous inflam terminates, is by <u>mortification</u> or death of the part affected. This term is often used synonymously with gangrene. — 5th <u>Induration</u>, or hardening of the part is frequently considered as another termination of inflammation, though this is disputed by some writers.

2. Phlogosis Erythematica.

The term Erysipelatous is sometimes used instead of Erythematic, & although authors, when defining the terms, pretend to make a distinction between the two, nevertheless in their subsequent descriptions, they frequently use them as synonymous. I prefer the term Erythematic, because it is not so vague as Erysipelatous, & has not been made to apply to so many different & distinct affections. Mr. Hunter observes that "the Erysipelatous inflammation is very peculiar, & most inflammations that are not of the true adhesive & suppurative kinds" (meaning Phlegmonous) "are called so" (i.e. Erysipelatous), "although they do not in the least belong to it, & this may arise more from a want of terms than a want of discrimination." It has been applied to a mere cutaneous eruption, to an Erythema of the skin, to a topical Erythematic inflam of the face symptomatic of an Erythematic inflam of the membranes of the brain, called by Cullen an Exanthem, & also to the same inflam of an internal organ when not accompanied by the symptomatic topical affection. - As far as I understand this subject, the weight of argument is as follows, viz, that the terms Erythema & Erythematic should be used in a specific sense with reference to inflam in general, & that the terms Erysipelas & Erysipelatous be used in a specific sense with reference to Erythematic inflam, i.e. that Erysipelas be considered as a particular species of Erythematic inflam, that particular species in which the inflam is confined to the skin. It is probable that the term Erysipelas has been used in this sense far more than in any other, both by physicians & by common people. As respects their Etymological signification, they are equally well adapted to this specific inflammation. The term Erythema is the Greek

ἐρύθημα-ατος, & is derived from ἐρευθος, redness, this being a very prominent symptom of Erythematic inflam. The radical verb is ἐρύω, to draw, & it is a peculiarity of this inflam to spread extensively in the texture in which it begins, though it does not pass readily to other textures. Mr. Hunter says that Erythematic (or as he calls it Erysipelatous) inflam "is more commonly a cutaneous inflam than situated in the deeper seated parts, although in some constitutions every inflam, wherever it exists, will most probably be of this kind; however" (he adds) "the skin appears to be most susceptible of it", & his reason for this is, "because it will spread over a prodigious surface of skin, while it does not affect even the cellular substance underneath, at least not commonly".

To proceed then with the description of Erythematic inflam Dr. Cullen defines Erythema as follows, & it is that form which is confined to the skin. "Phlogosis, colore rubicundo, pressione evanescente, ambitu inequali, serpente; tumore vix evidente; in cuticula squamulas, in phlyctanas vel vesiculas abeunte; dolore urente". Many of the symptoms of this bear a common name with those of Phlegmonous inflammation, though in character they are generally widely different. The swelling of Erythematic inflam, when external, is often slight, though sometimes it is very considerable, & occasionally when confined to the skin & subjacent cellular tissue of the face, it is so great as completely to close the cavity of the orbits of the eyes, & leave no opening whatever through which the patient can see. The tumefaction is of a soft puffy or quaggy nature, & very diffuse. The color is of a crimson red or dark purple, frequently of a shining appearance & disappearing on pressure. As respects temperature there is a con-

sideable range, & it varies from an intense heat to a state less than natural. The heat frequently conveys an acrid stinging sensation to the feel, similar to that of certain malignant fevers, which is sometimes not inappropriately called "calor mordax". The pain is of a pungent, burning, stinging kind, which with the other symptoms is very different from that of Phlegmonous inflam. The pulse, when the constitution is affected, is generally frequent, small, easily compressed, & sometimes quick & wiry. There is often great prostration of strength. The constitutional symptoms are far more severe than in Phlegmonous inflam. There is more or less disturbance of the digestive organs, the evacuations from the alimentary canal are of a dark color & highly offensive, the tongue is coated with a thick tenacious mucus. The nervous system is more severely affected than in Phlegmonous inflam, There is great irritation in various parts of the system, & a slight wandering of mind, followed sometimes by a low muttering delirium. — When this inflam is external, it generally produces vesication & desquamation of the cuticle, but does not often produce any effusion of coagulable lymph or pus. The cuticle will be studded with numerous minute (often microscopic) vesicles, which contain a dark colored fluid mingled with serum. Suppuration rarely occurs, & when this does take place, the pus is not confined within any circumscribed cavity, as is the case in Phlegmonous inflammation. The excretion is commonly of a sanious or sero-purulent nature, ie, imperfectly formed pus mingled with serum. — One author remarks that suppuration is a bad termination of this inflam, & when there is evidence that it is about to take place, or has taken place, we should open &

make compression, in order to check its progress. — There is sometimes an external Erythema, symptomatic of severe internal inflammation, which latter is probably of the same specific character with the former. When the internal inflammation is of the membranes of the brain, the topical affection is generally confined to the head & face; when any of the abdominal viscera is the seat of the disease, the external inflammation is usually upon the extremities. — The parts most frequently affected by Erythematic inflammation are, the skin, cellular substance, mucous & serous membranes, & occasionally though rarely (as is said) the bones. — There are several different forms of Erythematic inflam, which there is not time here even to glance at, their symptoms are very much alike, & they may be recognized from the above general description. The affection called by Dr. Good diffuse cellular inflam, & by Mr. Hunter, edematous inflam (which he makes a distinct species) is without doubt an Erythema of the cellular substance. —— To complete this subject, it would be proper to go more fully & minutely into the various constitutional symptoms that accompany Erythematic inflam; & to point out by way of contrast the symptoms which apparently belong to this in common with Phlegmonous inflam, as well as those which are peculiar to each. It is believed however, that sufficient has been said to render the <u>diagnostics between Phlegmonous & Erythematic inflam</u> clear & unequivocal to even the most superficial observer. — Granting the premises laid down in this dissertation to be correct, it follows that all inflam cannot be a unity, cannot be produced by the same causes, nor be subject to the same laws, & that the plan of treatment in different cases must be exceedingly various.

XVI.

Dissertation on Iodine

By
John Tyler Lillibridge,
of New York,
Candidate for the Degree of Doctor in Medicine.

In 1812, a Gentleman of the name of Courtois, at Paris, was employed in the manufacture of Carbonate of Soda from the ashes of incinerated sea-weed; after acting upon these ashes with cold water and Concentrating the solution to crystallization he observed the residual or mother liquor to possess Corrosive and peculiar qualities.

In experimenting upon this liquid, for the purpose of ascertaining more particularly its properties, he observed, that Sulphuric acid threw down a dark colored, metalic like substance, which, upon being subjected to an increase of temperature, was sublimed into beautiful, violet colored vapours.—

He next presented a quantity of this substance to Clement, a french Chemist, who recognizing it as a new body, investigated and described some of its leading characteristics.

The investigation was prosecuted more in detail and with still greater success by Gay Lussac.

He described as the results of this, labours some some of its most essential remarkable properties, and gave it the name of Iode from the Greek word on account

the intense and very beautiful violet
color it assumed when converted into
vapor.

It was at this time that Sir Humphrey
Davy, distinguished at home and abroad by
the extent & splendour of his chemical researches
was receiving amid the political convulsions
of France the tranquil homage due to his
genius. Gay Lussac presented Iodine to
Sir Humphrey, suggesting at the same time,
that he regarded its Combination with
Hydrogen (the Hydriodic acid) to be analogous
to Chlorhydric acid, an opinion which
was also entertained by Clement, with
whom he had conducted his experiments.

Sir Humphrey thought differently, and
at once stated his belief, that Hydriodic
acid, was a new and peculiar acid,
and that Iodine, was a substance
analogous in its relations to Chlorine.

He confirmed by subsequent
researches the truth of these opinions and
made known the results of his investigations
to the Royal Society before Gay Lussac's
papers were published, though he claimed
to have preceded the British philosopher

in demonstrating the peculiar nature of this substance. Sir Humphrey imposed a different termination and called it Iodine as better suited to our language.
To the French and English then our knowledge of this interesting body is equally due; the discovery like the name having commenced with the former and terminated with the latter.

Iodine is principally derived from sea weeds; and those which belong to the Tribe Ulvaceæ afford it in greatest abundance.

Fucus Saccharinus and Digitatus are the species sought for in its production. These after being reduced to ashes receive the name of Kelp; and it is from the leys and lixivium of this substance that Iodine is obtained.

It is supposed that this peculiar article is prepared or elaborated by the living economy of these marine vegitables; though it has not been ascertained in what state of combination Iodine exists in living plants (nominally).

Fucus saccharinus in which it abounds in greatest abundance, is said immediately to yield Iodine on being treated with sulphuric acid, without the previous process of burning.

Some animals are supposed to produce it and it is very well known that a small insect (the Acula fatidipinnis) emits a yellow liquid which on being mingled with starch strikes a blue color peculiar to combinations of that substance with Iodine. In sea water it doubtless forms a binary arrangement with sodium. After incineration it is believed to exist in the form of Hydriodic acid with a base. The lixiviums obtained from these ashes, in which the salt is supposed to reside furnish Iodohydric acid in solution; this liquid is treated with sulphuric acid. in excess. then boiled. & filtered; on adding Deutoxyd of Manganese to this the whole of the Hydriodic acid is decomposed; its hydrogen uniting with the ~~Deutoxyd~~ oxygen of the Deutoxyd & forming water while the Iodine being set free is sublimed into

a cool reaction leaving sulphate of manganese in the retort.

Iodine thus obtained is a dark colored opake ~~like substance~~ crystalline solid of the specific gravity of about 4.948 possessing a very extensive range of affinities. It combines with starch & forms a compound of a dark blue color. So delicate is this test for Iodine that it will detect it in a liquid containing 1/450 000 of its weight.

This combination has received the appellation of Iodid of starch; but I cannot find any record of its having been carefully and rigorously investigated. It vanishes on the application of heat, and is only formed with elementary Iodine.

Water is an exceeding feeble menstruum; to this liquid, of which it requires seven thousand times its weight for solution, it communicates a light brown tint. Its slight solubility in water, of course renders its aqueous solution of no importance as a pharmaceutic preparation. It is sufficiently soluble in alcohol & ether for medicinal purposes.—

Iodine has been found to possess useful and important medicinal qualities; and has ever been regarded a valuable acquisition to the Materia Medica.

Its medicinal powers were first observed in the cure of disease of the thyroid gland by Dr Coindet of Geneva.

Magendie, it is said first tried its effects upon brute animals

It acts as a powerful excitant upon the animal economy, its operations effects being confined principally to the secernent and absorbent or glandular system, manifested by a greater or less change of condition of diseased action in these parts.

It causes a resolution of certain chronic abscesses inflammatory tumours.

Its action is mainly exerted upon the absorbents, though the entire ~~glandular~~ glandular system is benefited and improved by its use.

It is particularly characterized by its resolvent powers and a long continued protracted use is said to have produced an entire absorption of the female breasts, as well as other important

glands though even in a healthy state when entering upon its use.

Glands which are in a morbid or really diseased condition are most susceptible to its resolvent power; yet those who have used Iodine extensively and methodically in small & appropriate doses declare that little apprehension need be entertained of its deleterious powers.

Iodine has been employed with considerable success in the cure of Cutaneous diseases. by obviating torpor and inactivity in the secretions and excretions of this function.

By some it has been asserted that Iodine occasions an increase of secretory activity of the liver; by others this is thought a very inconsiderable & at all perceptible effect of its medicinal power. The testimony with regard to its Sialagogue power is equally inconclusive; it is probable however that the salivary glands are effected though not to that extent to occasion salivation. Its emmenagogue power appears to be pretty well established and many cases are recorded of abstinate

and painful menstruation, complicated with scrofulous affections, entirely and permanently removed by its use.

There can be little doubt of its power over the reproductive organs; indeed we should naturally conclude that so powerful an excitant would not fail to produce its peculiar effect upon these parts.

The peristaltic motion of the intestines is frequently increased by the use of Iodine; though some have found it in peculiar conditions of the system to induce costiveness.

The use of Iodine is probably contraindicated by phlogistic diathesis on the one hand, and great weakness and exhaustion on the other.

The action of the absorbents is particularly stimulated by the use of Iodine; the influence is propagated even to healthy structures, which have gradually disappeared and wasted away from its long continued and immoderate use.

Enlargements of the spleen and liver are said to have been removed by the

Tincture of Iodine after a great variety of other medicines had been employed in vain. Its influence in Bronchocle and other enlarged glands, whether of a scrofulous or incipient schirrhous nature, has been amply authenticated

In all ~~the~~ Paralysmata, says Dr Good, the various preparations of Iodine as remedial agents are worthy of our confidence and attention.—

Strumous affections of the mucous membrane of the fauces, Coryza chronica, and other conditions accompanied with a lax and torpid state of the part, are decidedly benefited by the internal use of Iodine.

The inhalation of the vapours of Iodine has been recommended in Phthisis

Some inconvenience arises from its use in unstable habits; yet by careful management these cases characterized by torpor and inactivity of the mucous follicles are greatly relieved not infrequently suddenly & permanently cured.

Iodine is better suited to the cure of chronic than entonic inflammatory diseases; indeed a long continued use in moderate and judicious doses seems requisite to ensure the full ~~effect~~ beneficial effect of the remedy.

The pharmaceutic preparations of elementary Iodine are the following viz:

Pills of Elementary Iodine
Tincture " "
Aether " "
Ointment " "
Emplastrum " "

Neither the pills, nor the Tincture are regarded as eligible forms for the administration Alcohol of the specific gravity of .796 will dissolve 44 grs to the ounce; but the difficulty of obtaining alcohol uniformly of this strength renders the Tincture an uncertain preparation.

A plaster may be prepared with ʒi of Iodine to ʒi of Burgundy Pitch.

An Ointment is readily formed by rubbing up ℈i of Elementary Iodine with ʒi of Hogs Lard.

The ointment is regarded of much service in discussing indolent glandular swellings which have for a long time resisted the action of other remedies.

Its external topical application to ulcers has been found to act kindly in facilitating their entire removal. Its local action is sometime violent and should therefore be applied with caution.

The internal use in susceptible subjects, has been known to occasion an erythema vesiculare; this is doubtless rather an integrant effect.

Iodine exist as a component in various compounds which have been extensively and successfully employed in the cure of disease. The Protiodid of Potassium is much employed by some practitioners; it exibits much the same medicinal qualities as Iodine, though in a much less degree.

Some have asserted that the Potassium retains in combination its antiphlogistic qualities; and that these effects are manifested by a long continued use of the ~~medicine~~ preparations

The preparation which has been found easiest of administration, and which is of general application when Iodine is indicated in the cure of disease is the iodide of the Deutiodid of Potassium.

This preparation is prepared by mingling in solution the Protiodid of Potassium with Elementary Iodine in the proportion of their respective equivalents.

The solution is of a dark brown color, which is thought to be a combination of Potassium with two or more equivalents of Iodine; no such compound however has been obtained in a solid form.

That a combination takes place may be safely inferred, I think, from the fact, that the water is discolored by the Iodine, an effect which could not take place without chemical action.

Yale College Medical Institution
January 1842.

John. P. Gilbridge

XVII.

Dissertation on Empiricism.

By
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Candidate for the Degree of Doctor in Medicine.

A dissertation on Empiricism by

E. P. Lyman

In holding up the subject of quackery before the medical faculty, or the members of the medical profession, I need not tell them that it is an evil. Nor indeed should I need to tell the members of any other profession, that it is an evil in every thing except the science of medicine. Almost all, in theory, are ready to admit this, as a general principle, but, alas, how many are practically the patrons of quackery, when she puts on the air of sophistry, or the mantle of secrecy.

Of all the forms of quackery, medical quackery, is, in my opinion, by far the most pernicious and destructive. Yet she finds many more who are ready to become her willing votaries when she puts on this form than under almost, indeed any, other form in which she has yet appeared before the public. Many are ready to become its firm supporters and upholders by employing a quack doctor, (even when their own lives, or the lives of their friends may be at stake) who, when speaking of the system of quackery, i.e. quackery as a whole, are ready to denounce it as a most baneful and pernicious thing. Thus in their theory they seem to be correct enough, but some

way or other, they fail in carrying it out in practice. They say one thing in word, but in action, O, how strangely different is their language. It would seem that they regard the subject of medicine in a different light from what they do any other profession; or any trade. They do not seem to consider, but that the most ignorant, and unlearned man, may be more skillful in curing diseases than the best educated physician. It would seem as if they thought that medical skill was not a thing to be learned by careful study and investigation, but rather, as it were, a sort of innate and instinctive property of certain individuals. Or, which is more probable, as I am inclined to believe, they do not wait to think much, if any thing, about it; but adopt at once, whatever absurdity is held out to them, however inconsistent it may be in itself. Strange as this may appear to the members of the medical profession at first view; still we can readily see, how this may be the fact, when we consider how profoundly ignorant the public are, on the subject of medicine. Were the public possessed of only common sense, in medical matters, it would be aware also that medical quackery is an evil.

Quackery, and imposture, has existed in every profession and trade from the very origin of arts, and is, even now more extensive than ever before. As arts are more numerous, and extensive; so also is this system of fraud and deceit; seeming as it were, to grow, with their growth, and strengthen with their strength. It has existed even in religion, from the very earliest ages. The priests were quacks and impostors, as is well known,

when they pretended to have influence on the skies, and to even hold the keys of heaven. And is not even now, the mask of sanctity sometimes worn by the hypocrite for the sake of obtaining his own selfish ends?

It exists also in the profession of law. Lawyers often urging their credulous clients to suits which none but themselves are the winners. Indeed in almost every lawsuit is not one party or the other deceived by the opinions of their legal advisers?

What trade is there indeed, among men, in which the inducements to quackery are at all alluring, into which she has not already crept, and in which she is not now exercising almost unlimited sway.

It has existed in medicine from its very infancy; from the time when the science of medicine was confined entirely to the priests; and exists in it now, to a still greater extent than ever before, even in the advanced state to which as a science it has now arrived. And probably will exist in it, as long as there are those who will suffer themselves to be duped by the ignorant and unprincipled, and as long as there is lucre obtained by duping them.

It is not to be expected that the public will be the best, or even very good judges, of medical skill and merit. From the very nature of the case this can not be the fact. Still it is not a little strange, that men should be able to make themselves believe, that the ignorant and unlearned quack who has nothing to recommend him to their confidence unless it be his impudence and selfsufficiency, can be so much superior in point of medical skill

to the regularly educated physician, who has made it his whole lifes business to investigate the nature of diseases, and by careful study and examination, endeavoured to find the most sure and safe method of alleviating them. This study and investigation of diseases and remedies is absolutely necessary to the existance of a physician. For, I say, that man who prescribes merely from his own observation; without any knowledge of the sciences of medicine; and who prescribes merely to symptoms, practices empirically

No system of imposture, however great, is so absurd as not to find its votaries among some portion of the public. I may almost say, the more absurd the better, if it is only carried on with a sufficient degree of secrecy, or pomposity. There is no secret nostrum however knavishly got up; no empirical pill so large; nor indeed is there any so infinitesimally small, but that there may be found some, yes many, whose gulability is so constituted that they may be made to swallow down all of them, at different times, with equal ease, and indeed I may say, with almost equally good effects; (however diversified they may be in their nature) if only recommended by an ignorant and unlearned pretender to medical skill

Now this disposition to support quackery and imposture is by no means confined to the ignorant alone. We find this propensity to follow after something new, this love of the marvelous, almost equally developed in all classes and casts of society. It exists hardly less, in the most learned and scientific, those who stand at the head of the most learned professions; "the talented men and those in high places"

than among the unlearned, and less educated members of society

You will find the former as ready to swallow Matchless Sanative and mustard seed pills, as the latter; And quite as ready to talk of the instantaneous and thrilling effects, which a quadrillionth of a grain of gold produces when received into their stomachs or of the thorough and beneficial change wrought in their constitutions by the administration of some inert nostrum, (or at any rate something which would have been inert and useless if administered by a regular member of the profession). Nor are they less forward in publicly lauding and eulogizing the discoverer of so potent a remedy for alleviating human misery; and in recommending him to the patronage of the community, many of whom, like themselves, are made his dupes, perhaps in this very way. I think it is evident from the rapidly increasing support that is given to quackery in these illustrious days of Homeopathy and Mesmerism that the bump of credulity ~~must be~~ is most enormously developed in the present Publics head It would indeed appear, as one has said — that

"The pleasure is as great,
Of being cheated, as to cheat"

I have attempted to show, that quackery is an evil, because it is a system of fraud and deceit. But it is not an evil simply in this respect. It is an evil because it fills the community with hosts of rogues and fools." It is also an evil, because it tends to create the very ills it feeds upon, and affecting to cure all diseases it produces, or perpetuates, many. And further it is an evil because it gives the public erroneous ideas, of the operation

of certain drugs, and often rendering it difficult, or even impossible, for the physician to administer in a particular case, some important remedy, on account of the prejudice which the individual himself or some of his friends may have acquired against it through the influence of a deceitful and avaricious empiric.

And thus abuses what is so requisite for the happiness of man; the art of medicine itself.

It is sometimes claimed by the advocates of quackery, that the antipathy which exists among medical men towards quack and nostrum venders, arises from a feeling of self-interest. That it is such a feeling as is common for men to have, towards those who are about to supercede them in practice, or rival them in popularity; and is therefore entirely of a pecuniary nature, say they. This I would deny intirely. For, if they were influenced, merely by feelings of self interest; instead of attempting to suppress and put down, a system, which fosters the employment of drugs and medicines by ignorant and unlearned men, men entirely unacquainted with the nature of the drugs which they administer, or the constitutions of the individuals to whom they are administered, or of the stages, type of the diseases, &c. which they treat; they would rather lay hold of it, as one of the very means of accomplishing these selfish ends. If the faculty loose, and quackery gains, a particular case, is not ample compensation made; (so far as the pecuniary interest is concerned;) by the ill health, which quackery produces in hundreds, and the disposition to fly to physic which it generates

in thousands. In the end, do they not rather increase in a tenfold proportion, the catalogue of the regular physicians patients? But if you answer the misguided follower of quackery with arguments like these, he will say on what ground then is this antipathy of yours founded? (for we know that such an antipathy does exist.) I would tell him, that it arises from a natural feeling of disgust, at a barefaced system of deceit, and humbug. a system which produces nothing good. (or at any rate very little if any thing) but on the other hand much of evil. There is a natural feeling in the heart of every man, which, unless his mind is influenced by the strongest motives towards wrong, fills him with horror, and disgust, whenever he is conscious of doing wrong himself, or whenever he witnesses wrong actions in others, And it is this natural feeling of aversion to wrong, that makes us feel contempt, and indignation, at these miscreant, who we see deceiving and injuring the public, by the most scandulous, and dishonest means. But while our feelings thus revolt at the wrongs of an injured public, they are at the same time aggrevated by the knowledge of the fact, that such practices tend to bring discredit, and dishonor, on the science we profess. Are not these then natural, and sufficient, reasons, for indignation and resentment, - Reasons why these members of community should be regarded as enemies to the commonwealth, and nuisances to society. I wish that all party strifes and class quarrels, were as justifiable and as praiseworthy.

I have frequently heard this remark, or these remarks made, in support of certain empirical persons, by some intelligent

members of society, but of course, those who were entirely ignorant of the science of medicine. Viz. "That Dr is the best who looses the least number of patients." And, again, "I think that a doctor (meaning by that any one who makes any pretensions to medical skill) whoever he may be or whatever theory he may adopt ought to have his pay, howmuchsoever he may require, if he only cures his patient" (that is I suppose if he does not prevent his getting well.)

With certain qualifications, this may be admitted as true. And first, that "that Dr is the best, who looses the least number of patients." other things being equal, must certainly be admitted as true, in as much as curing the patients is the whole object of medical science. It is indeed true, that the public have no other so good a test by which to judge of medical skill, and indeed it would seem that this might be a tolerably accurate one even in their hands, if rightly applied, and yet how strangely, are they often misled, in applying it. There are many qualifying circumstances, which ought to be taken into consideration, which the public know nothing about. Such for instance as the nature of the prevailing epidemic, and the difference in form, and malignancy, which it may assume in different situations, or the various modifications which it may undergo, in consequence of season, temperament, habit &c. All these and many other things are matters of no small moment, in deciding whether the loss of a larger proportion of patients in one district, than in an other, is owing entirely to a want of skill in the physician or not. None but those who are thoroughly acquainted with the nature of diseases, their mode of treatment, and the various causes by which they

are modified, (which would constitute, as you see, a well educated physician) can rightly appreciate all these circumstances, and are therefore the only competent judges in these cases. Still the public have facts enough in their reach, which if properly put together and applied, might lead to a correct opinion in a great majority of cases. It is frequently said that in the end, public opinion always proves to be in the right of the matter. Now howsoever good a rule this may be, in other things than those pertaining to medical matters, it would certainly be a very poor one to go by in this. If a quack, looses a patient, there is always some very good reason why he did not cure this one. He was not called until it was to late to do any good, or until some regular physician had given some one of the mineral poisons, and thus put it out of his power to cure him, or until something else happens, which answers as a very good reason why the loss of this patient, should not be attributed to his want of skill. But if on the other hand the blundering empiric suffers a patient to get well, (not to say cures) who perhaps appeared to have some dangerous disease about him; how quick, will the news be spread to all parts of the town, of the unparalelled cure performed by Dr ——— And ample employment, will be immediately afforded, both for the tongue of the tatler, and the ears of the credulous. One cure (if perchance it be a cure, and not an escape) performed in this way, will excite more wonder, and produce more praise of the Dr.— than a dozen cures of a similar complaint much more praiseworthily performed, by a regularly educated physician, who goes still and quietly about his own business, making it his whole object to cure his patients, and alleviate human misery as much as lies in his power, instead of merely seeking

his personal interest and emolument. With regard to the second part of the proposition, that, "Drs. ought to have their pay" I can most cheerfully accede to this, and would wish that the public were always as ready to act up to this principle in practice, as they are to admit it in theory. "All that he may require" say they: I too would say that Drs. should be paid all that they may require, when they require no more than a reasonable compensation. "Whoever he may be &c". Whoever he may be, if he is a man worthy of the patronage of the public. and competent to assume the guardianship of public health, "his reasonable bills, certainly should be paid without murmuring". And if he is not but if on the other hand, he is merely a selfish pretender to the science in which he professes to be so profoundly skilfull, I need hardly say, the pay will come some way or other. For it is found to be the fact. that those who are most apt to murmur at paying their physicians bills, or those who either will not, or can not, find the means of paying them at all, are usually among the first to employ a vaunting, and puffing, empiric with money in hand

And lastly, "If he only cures his patients say they, Oh! what is meant by this form of expression? Is the physician to have pay for his services only when he is so fortunate, as to meet with a disease, which may readily yield to the proper exhibition of his remedies. And is he to receive nothing but reproaches and insults in repay for the many sleepless nights, and toilsome days, spent in investigating and studying out the nature of the most complicated cases; those cases, which call forth the strongest energies of the mind, to devise a safe method for carrying the patient through his tedious struggle with so powerful and intricate a disease,

because after all his toil and labour and ware & tare of of mind, he may not be so fortunate, as to succede in. baffling this most formidable disease? No medical skill can deprive death of all his victims. Or is he to receive nothing in repay for the ease and comfort and short prolongation of the hours of life. (which in some cases certainly is not a small consideration) that he by his medical skill is enabled to secure, in a considerable number of cases, even where there is no rational expectation of an ultimate recovery? No. surely such sentiments as these can not be the dictates of sound reason, or common sense. They are rather the products of blind infatuation, or, more probably, the mere expressions of a moment, and not duly considered before promulgated; and need not therefore have been noticed here, but for the fact, that they are practically and extensively acted upon by far too large a portion of the community. †

† One very common folley and perhaps one of the most plausable, that is urged by empirics, in favour of themselves, and in disparagement of regular practitioners, is this; "That there are no certain truths in medicine; and consequently no sure tests of what is right or wrong" "that Drs. are constantly differing among themselves, and that there are no fixed, and invariable, rules of practice decided upon That Medical men are often incompetent to the task assigned them, &c. Well now, allowing these pleas of the ungualified to have all the weight they possibly can, they prove nothing more than the great difficulty, of rightly applying the science of medicine. And show the need of a still greater amount of learning, in those who have so ~~great~~ difficult a task to perform. If the most skilful and experienced,

have so great difficulties and uncertainties to encounter; what must be the thick darkness, in which those are left to grope, who are entirely ignorant of the properties of the drugs which they administer, and the different effects which the same remedy may produce in different constitutions, or in the same constitution, at different periods, and stages, of the disease, &c.

The difference which the same disease may assume in different individuals, and the changes which it may undergo in consequence of stage, type, &c. may render the same remedy, either good, inefficient, or injurious, according to these varying circumstances. But surely, in a subject where so great difficulties and uncertainties are to be encountered by the most skilful, the idea of its being on this very account, equally committed to the ignorant as of the well informed, is too absurd to be openly propounded and espoused in the nineteenth century; though it is practically, and extensively, acted upon, among a too easily deluded public.

An other argument which some of the advocates of quackery hold up in favour of this system, is — that she is the mother of invention; and consequently, that to put down empiricism would be to check discovery. Now that she is a mother of invention, I do not in the least doubt; but her inventions consist wholly, in devising means for carrying on this system of humbug and deceit, without exposing its unjust claims to the patronage of the public. But to say, that to put down empiricism would be to check discovery, is certainly saying what is very far from the fact. Empiricism at least in the present day, furnishes no discoveries. I am not aware, nor indeed do I believe, that a quack ever stumbled upon, a valuable remedy in medicine. Or ever was the means of introducing an important article

into practice. I mean any other than a physician. Secrecy is not at all necessary to the discovery of new remedies nor to the right application of them. It is merely an engine of delusion, fraud, and ~~deceit~~, mischief; and as such, it is resorted to on a frightful scale. But even allowing that the quack may discover a valuable remedy he can never rightly apply it As before said mens constitutions differ, the same disease differs in different individuals, and in the same individual at different times, thus rendering the same remedy either good, inefficient, or injurious, according to these varying circumstances. And how can the quack, who knows not how to appreciate these circumstances, though he may have ~~rightly~~ discovered a valuable remedy ever rightly apply. If any one out of the profession has really discovered a valuable remedy, its nature should be made public. Nor should he by attempting to pass it off on the public as a panacea, more than counter-balance the benefit of so important a discovery. Oh! but, say some, that would prevent the discoverer from reaping his legitimate reward. Were most or indeed were scarcely any, of the secret remedies really important, this argument might carry some weight with it. But the truth is as I have said before; that the secrecy of the composition is employed only to conceale the inert or dangerous nature of the drug. We seldom, at least in this country, see evident good entirely unrequited. I repeat, it is not from empiricism, that we obtain our new and valuable remedies, but it is from the sister science of Chemistry, that we obtain such remedies as. Iodine, Quinia, and Morphia, That this is the fact a glance at the patient medicines, and a slight examination of the analyses of many of the secret nostrums, will clearly show and conclusively prove. Any possible good which can result to science or the public from its

continuance, is too minute for calculation, the evil, is great, prominent and frightful

Well now the question naturally arises, what is the remedy for this state of things, or by what means can quackery be done away? Some writers on the subject have advised a general study of medicine by the community as the only means of accomplishing this object. The thing itself is impossible. And even if it could be carried into effect would not the mischief resulting from this course be almost incalculable? How could one in a thousand of the community acquire any considerable knowledge of all the different branches of medical science. The unfolds a wide field, embracing, Anatomy, chemistry, Botany, Zoology, mineralogy, pharmacy, practice of medicine, and various other branches of physical science, either of which alone cultivated in its fullest extent, would be sufficient to engage the incessant and laborious occupation of the mind The smattering of medical science which they could possibly obtain, would only tend to render a large number of them hypochondriacs. Even medical men themselves are far more frightened by their own ailments than we their most ignorant patients. Nor, as I can see, is it possible to devise any means by which to accomplish this object so long as the state legislatures shall continue to lend their aid in securing to the inventors of patient quack medicines the means of deceiving the public

How vast is the injury done to the public every year, by permitting secret nostrums to be advertised on so large a scale in the public news papers. These advertisements, coming as they do into the hands of persons ignorant of medical knowledge, with their many certificates and

recommendations, to some of which I am sorry to say, are even attached the names of eminent medical men; those too who it would seem should have known better) are yearly, the means, either directly, or indirectly, of destroying many lives. Frequently a person labouring under some dangerous disease is influenced by the great recommendations, which some inert nostrum is receiving in the newspapers, to delay the only effectual means of curing his disease, until it is too late to succeed by any treatment whatever, under the vain hope that he may possibly be relieved of his malady in this more simple manner

Medical men should be exceedingly careful about attaching their names to certificates of this kind. Indeed it seems to me, that it should never be done, for it will have a tendency to lead many valetudinarians astray. It seems to me, that the legislatures in every state, ought to prohibit by law the advertising of secret nostrums in the public newspapers and other public prints. And every medical man should use his influence to bring about this thing. And those whose influence is great in the profession, should use that influence in bringing the legislative bodies to effect this object. If this can be done, it seems to me that one great step would be accomplished, towards putting down, or checking at any rate, quackery, and preventing a very considerable amount of the injury which is now resulting to the public from its continuance. But it would still remain, to prevent the vending of secret nostrums, as such, by their respective agents, by the apothecaries &c in the same manner Which in my opinion should be done. Because; for the reasons above stated. secrecy is not necessary to the proper application of any important remedy to any disease; nor is it necessary to secure to the discoverer of a valuable remedy

his legitimate reward. No possible good of this kind can result from it. It is a mere coverslut to the inert or dangerous nature of the article. It seems to me that more can be done towards suppressing quackery by legislative enactments, than by all other means put together, and that it is almost, if not quite, the only way, in which any thing effectual can be done towards accomplishing this object. But after all I do not think that quackery can be entirely prevented, by any of these means. Men will find some way to evade the laws or escape punishment. We see what has been the effect of laws of this kind in England. At first, a law was passed that surgeons, (for they were accustomed to prescribe and attend to patients) should be men educated in the science of medicine. On the passing of the law there sprung up immediately an other set of men — the apothecaries, who took upon themselves to prescribe and practice physic &c. And after a long struggle, it was decided that these apothecaries should also be men of medical science. And now a new sect still has sprung up, who style themselves "the Chemists". These attend to, forming and preparing medicines, prescribing &c. And now the question is being agitated, whether these chemists (as they style themselves) shall be required, also, to be educated in the science of medicine or not. It is probable that this difficulty always will exist, to a greater or less extent, in attempting to enforce a medical education on this class of community.

To the young practitioner who is about commencing his labours, these things are frequently the cause of considerable embarasment. And even to those more advanced in years, who have had much more experience, and who may be well established in practice, they are sometimes a source of great annoyance. But nevertheless, the young practitioner has many things to cheer him, and encourage him on in persuit of his profession. "If he is industrious and persevering in his labours, if he makes it his great object to increase in his professional knowledge; and if he subordinates every other desire and interest to the simple business of doing good to his fellow men," he will always have the consolation of a clear conscience, and those pleasurable feelings arising from the consciousness of having done right, to cheer him through all the changing scenes which he may be called to pass.

XVIII.

Dissertation on Counter-irritation.

By
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Counter-irritation (from contra & irritare)

This term which is of recent introduction has been adopted in medicine to designate any irritation artificially established with a view to diminish remove check or counter act some other irritation or inflammation existing in the system = Counter irritants are generally employed Externally = Yet we have medicines that irritate & stimulate internally as Emetics & Purgatives & their Efficacy doubtless in a measure depends upon the counter irritation which they produce, but in this dissertation we shall confine ourselves wholly to external counter irritation The employment of counter irritation in the practice of medicine is not recent but when & where this mode of medication first had its origin & how it became adopted in the treatment of disease = in my investigations I have been unable to ascertain It doubtless was in vogue or employed in the Earliest ages & in all probability was first adopted from nature's example for it is no uncommon thing to see some long established functional disease subside or disappear upon the appearance of a cutaneous Eruption much like that produced from counter irritation This occurs more common in sub inflammatory affections of the mucous membranes but numerous Examples are recorded where Mania Paralysis & Chorea

have in a like manner disappeared on the coming out of an eruption - Thus establishing the supposition that from nature's Example art adopted the employment of counter irritation & with what result will be in a measure hereafter shown. In order that we understand & correctly estimate the advantage to be derived from the Employment of counter irritation it becomes necessary for us to enquire into the curative principle & the laws on which this influence depends. Unfortunately however our enquiries are restricted by the limits of our knowledge as it regards irritation & inflammation in general - but sufficient may be obtained to guide us in the Employment of counter irritation

"Counter irritation - produced by irritant which cause no Effusion or discharge owe their efficacy chiefly to the direct impression which they produce upon the extremities of the nerves. This impression being reflected through the system by sympathy or some other way & either by lessening or changing the morbid action of the affected part certainly does much to the removal of the disease & restoration of the system -

Those counter irritants which produce an Effusion or discharge owe their Efficacy not only to the irritation which they cause but to their evacuant properties also - hence we find this class of remedies not only employed in the treatment of certain diseases -

as

as counter irritants - but as local depletion is Remedies of this order in the practice of medicine are held in high estimation & deservedly so, for in the treatment of diseases their beneficial effects have been neither slight nor rare. They first draw off the irritability from the diseased part, then exhaust it either by an effusion of Serum or a discharge of pus. Dr Rush says there is a time in all fevers when a blister may be applied with advantage - this time I do not pretend to point out, the same gentleman also remarks it is necessary in high inflammatory disorders that the lancet should precede the use of blisters - or in his words the system brought to that condition where translation will take place. It is an established fact now I believe acknowledged by all writers that in pure Entonic action of the system, that bloodletting & other means should be employed to depress the general excitement & irritability of the circulation previous to the adoption of counter irritation — also that their application is not to near the seat of inflammation or irritation - lest the excitement which they produce fall in with the disease & render it worse - by observing these cautions I think the use of counter irritation will be rarely followed with bad consequences - unless there are peculiarities of the constitution which will not tolerate the

of blisters owing to the excessive pain & constitutional effect which they occasion = which will again be adverted to in speaking of vesicants = Having now given the signification of the term Counter-irritation & limited ourselves to external counter irritations in as brief manner as possible & also of the curative influence of counter irritants & the laws on which that influence depends, without attempting to give any definite exposition of the manner in which this influence produced its curative effects, but simply stated the most probable manner in which these irritants acted which produced no effusion or discharge then in a like manner considered those which do occasion a discharge or an effusion, then gave the general rule in regard to that state of the system in which they (counter irritants) were inadmissable. We will now proceed to consider the most prominent remedies which are employed for the purpose of producing counter irritation & most of the diseases in which they have been employed

For the purpose of convenience & advantage we will consider the counter irritants according to their degree of activity & commencing with those that are the most mild & thence onward until we arrive at the most profound = Rubefacients = Any application which excites a mere increase of action in the

capillaries of the skin accompanied with a blush or redness terminating in complete resolution & not unfrequently in desquemation of the cuticle" is called rubefacients — Rubefacients when extensively employed are general stimulants as well as local excitants therefore they may thus be adopted when there general torpidity of the surface accompanied with a sense of coolness

Where such a state of the system exists their adoption will be followed with the happiest effects they will equalize the excitements by diverting the blood from the internal organs to the surface thus bring the system to that points in which remedies will produce their effect. In high entonic action or where a general phlogistic state of the system prevails they must give place to the more active whilst in inflammatious of organs coming on in the progress of fever & those dangerous rather from their seat than extent they are remedies of the highest utility they have been found serviceable in chronic inflammation of the mucous membranes also in nervous affections particular those of a spasmodic kind especially when affecting the stomach & bowels in various anomalous pains" they have proved beneficial such as partake of an nervous as well as an inflammatory character as the tooth ache ear ache also where there is lameness or slight soreness of parts

they have been employed with much satisfaction

When there is great depression of vital power as in Typhus fever, asphyxia &c, rubefacents are of the highest value the general stimulus which they produce tends greatly towards a removal of the disease

They are remedies you can rely upon they are to use the expression of the learned Prof of physics in this Inst. like the irish mans Shelalah which never misses fire. The remedies employed to produce this degree of counter irritation are numerous I shall merely mention the most prominent without dwelling upon them for should I detail to you the just mode of preparing & applying & the individual cases in which they have been employed & the exact stage & with al the effect it would occupy more time & space than we could devote to the whole discourse therefore we will proceed to enumerate in as brief manner as possible - The one most general employed as rubefacient is the mustard paste (the common sinapism) this is active energetic & where a rubefacient effect is desired of this kind it is one of the most eligible we can employ some prefer the past mixed with spts Turpentine as being more active - it doubtless does by extracting the essential oil in which the stimulating quality of the seed resides Dr Ives recommended the

following as being speedy & effectual.. Aqua Amm:
Spts Turptine a a Caustic ammonia & Mustard
making a paste. Heat betwixt 100 & 150 either
dry or moist is capable of producing this degree
of irritation so the Essential oils & Spirits also
Ether, pepper. the strong alkalies & the strong
acids diluted. the weak concentrated & the
strong counter irritants applied for a short time
have been used to produce this degree of irritation
A flask of warm water - a bag of hot ashes
or sand a poultice formed of crumbs of bread
hot vinegar & pepper have also been used
for the same purpose also. the volatile lini
ment & the camphorated as mentioned
the sin apisms to be the most active so burdock
& Mullen leaves are the most feeble. yet they
possess some Efficacy & may be employed where
a mild rubefacient is called for. frictions
also produce this amount of irritation & where
there is torpor of the cutaneous exhalants
their use is attended with considerable satis
faction there is the Garlic. the may weed (anthemis
cotula) & a host of others employed for the same
purpose are to numerous to mention - Should
to great irritation or inflammation arise
from the employment of rubefacients

cold applications will be serviceable or a cataplasm of Hyoscyamus or Belladona, or what is still better according to Prof Ives the Stramonium leaves or a poultice of the seeds

Having now hurriedly passed over rubefacients we come next to the consideration of those remedies which produce counter irritation rather more profoundly. These we shall denominate Vesicants. The irritation or inflammation they excite terminates in Effusion of serum. In the treatment of diseases blisters or vesicants are highly valued & rightfully too. as rubefacients or simple counter irritants they yield to sinapisms & other remidies of that class but their effects as local depletories gives them a superiority over all other irritants in the treatment of inflammations affecting serous membranes as in Pleuritis Perotenitis

In chronic inflammation of the mucous membranes they have been employed with decided utility they have also been found useful when there has prevailed a general irritability of the system with fugacious pains by localizing the irritability & thus releiving the system. In Effusion of joints they have proved efficacious. what has been said of rubefacients in regard to spasmodic diseases is equably applicable to vesicants. In inflamma-

tion

affecting the parenchyma of organs. They are not so useful as the more powerful, yet they are serviceable & often employed in such cases with great benefit. In inflammation of the urinary organs there has been some objection raised against use of flies as Vesicants, how justly these objections are I leave it for you decide, which I presume experience enables you to. There is however an Ethereal solution of the flies, which produces the vesicant effect fully, with out exciting irritation of the urinary passages. This I obtained from Prof Ives. I know nothing of it my self having never seen it employed. There is also another method which has been adopted to produce the same I mean obviate the same effects of the flies. it is to place a piece of thin muslin or gauze between the surface to be blistered & the blister. I regret that I am unable to speak upon this mode of treating blisters to prevent strangury.

The remedies or medicines employed for the purpose of vesication are not numerous the one most usually employed & which answers the purpose the best is the Spanish flie. the cantharis or the blue vesicatoria. this is capable of fulfilling almost every indication for which the blister is employed. the potatoe flie has similar—

properties. Yet the uncertainty of collecting them renders a prohibition to their general use. Beside the flye we have several vegetables the juices of which produces when applied to the skin vesication — as the Ranunculus - Clematis &c. I do not dwell upon them they are rarely if ever employed & when employed their effect is uncertain

Heat is capable of producing vesication when applied intense enough also the strong acids & some of the metalic salts But this mode of blistering is uncertain & often unmanageable, the inflamation which they cause is of a diffuse character, & occasions large sloughing &c. are seldome employed in the practice of physic for this purpose

In Meningitis & Phrenitis where you wish to vesicate the scalp after the inflammation has been moderated by the abstraction of blood it can be done without removeing the hair or as it is commonly termed "shaveing the head" by making a mixture of Aqua Am. & Tinct of Cantharides & rubbing it in thoroughly with a brush. Dr Hosher informed me that this would thoroughly & speedily vesicate & would obviate all those unpleasant feelings which exists in the breast of friends on beholding the head shaved it is an unseemly sight & considered by them

Counter irritation

as a dernein resort & therefore we should avoid exciting such feeling if possible For a speedy vesicant agent any hogs lard Equal parts by weight thoroughly triturated may be employed it is said to have produced vesication in fifteen or twenty minutes Should blisters excite too much pain as they are sometimes liable to it may be remedied by sprinkling a little powered opii or acetate of Morphia upon the surface of the blister previous to the application If a blister shows a tendency to gangrene it should be treated upon general principles as by stimulating & giving internally the bark & local applications are of service as the chloride of lime Soda &c Should to great a degree of inflammation arise a poultice a poultice should be employed

With these few condensed remarks I dismiss Vesicants & proceed to the consideration of the next degree as it regards power & activity

The counter irritants hither to referred to are such as terminate either in resolution or an effusion of serum there is another class, which affect the texture of the skin more deeply & determine the secretion of pus These are called pustular or Empyematous counter irritants These remedies have been used with advantage in deep seated inflammation even of the acute kind therefore

& frequency of the pulse being previously moderated. in chronic inflammations they are of decided utility & many cases of Epilepsy, Chorea, Mania, paralysis, neuralgia & diseases of this class have been either removed or greatly benefitted. numerous cases are recorded of the former where they have been entirely & permanently cured. Irritants of this class have been employed for the purpose of removeing inflammation of the Eyes, Ears, & fauces which have by continuance engrafted themselves upon the habits of the system & are very difficult to remove. in Pertussis & bronchitis of a chronic nature they have been used with decided benefit also to retard the progress of Tubercular phthisis & with testimony in their favour & in numerous other disease partaking of the same general character. The remedies employed for the purpose of producing this degree of irritation are but few. Tart. Emet. is one that has been more generally employed than any other — it is generally sure in its operation & rarely proves unmanageble & can be employed whenever such counterirritation is desired. It is most commonly employed in the form of an ointment. Tenners formulae was two proportions of simple cerate to one of Tart. Emt. this is however varied according

to the degree of irritation desired. an ointment of the strength of Dr Jennings formulae will generally bring out a fine crop of pustules if a speedy effect is desired for on this ointment it can be greatly hastened by pricking the part & applying some penetrating liniments previous to the application of the oint. An aqueous solution will also produce this amount of irritation & as it leaves no marks or burns is peculiarly suited to females who renounce all medicaments that leaves a trace behind=in order that you have this degree of irritation it is recommend to have the water as warm as it can conveniently be borne. so. that it may take up more of the salt & also quicken its action,

In gastritis it is improper to irritate with Tart Emet. owing to its tendency to excite vomiting. Besides the Tart Emet. the corrosive sublimate Iodine & the Arsenious acid have all been employed for the same purpose The corrosive sublimate has been extensively employed & is by some thought superior to the Tart Emet it is used in the same diseases & employed both in the form of an ointment & a solution. Dr Keogh speaks highly of it in Effusions of joints also for the purpose of discussing non malignant tumors. I know but very little of it from observation of its effects. therefore do not dwell upon it. The Iodine has had quite a reputation in the cure of Scrofulous enlargements

of glue &c. Dr Hooker informing me he has employed it with success in Paronitis and in one instance in the whitlow & in all probability would be service able in the carbuncle. Dr Hooker's formulae is I believe about twenty grains to the ounce of simple Cerate of the arsenic I know less still. it is recommended as an irritant in some cutaneous tumors, & is I believe to be the base of the Cancer oint. If employed its effects should be watched & if it effects the constitution as it is liable to its use should be suspended

Should to great a degree of irritation or inflammation arise during the use of Tart Emt a warm bread poultice may be employed which does not interfere with the progress of the pustules with these few brief remarks I leave pustular irritants & proceed to the consideration of perpetual blisters, Setons, & Issues. The former of these is not employed much at present. physicians preferring rather to vesicate from time to time than apply irritants to a blistered surface for the purpose of keeping up a discharge. therefore I do not dwell upon them. Setons & issues have been found serviceable in chronic inflammation, particularly of the joints they have been employed as safeguards against appoplexy, palsy & other diseases of repletion. they have been resorted to in the healing up of old ulcers which have been of long standing

also in the cure of Eruptive diseases which the system has been accustomed to for some length of time thus preventing any ill effects from a suppression of the natural counter irritation they have also been used for the purpose of restraining the growth of tumors & deminishing their size in Bronchocele their employment has been attended with benefit. The formation of Issues & Setons I shall neglect to mention also further of their employment & Efficacy. We come now to the consideration of the last class which are more profound in their action more general in their operation than any here tofore referred too. This class is styled the counter izeing counter irritants. This mode of counter irritating is so painful & formidable that it is scarcely ever adopted tho. the shock & the impression which is made by irritants of this class upon the system has often proved highly salutary in some instances even marvelous. Dr. Mackintosh I believe relate case where a woman had ovarian dropsy with inflammation of the abdomen was cured by extensive counter irritation of this kind. He relates it in the following manner that her clothes accidentally caught fire & she was burned extensively before the fire could be extinguished. Upon recovering from her burn much to her supprise & joy she found she was cured of her disease

Counterirritation

It is much better to let accident adopt such treatment & have the reputation than for the physician. This mode through irritating in a less degree has been employed in hysteria & Epilepsy with some advantage. it has also been found useful in checking local spasms. Heat is applied by metalic instruments or by water at the boiling temperature or its vapor. Iron or copper heated to different degrees of incandescence is employed for this purpose of producing local irritation or sours. this is termed "actual cautery". there is another called by the surgeon transcurrent which consist in passing an iron heated cherry red on the surface of the skin in parallel lines at such a space from each other that there shall be an intervening portion free from inflammation this mode of irritating has been adopted in enlarged joints & the remains of rheumatic affections. the severity forbids the use except in very indolent & chronic cases. Moxa has been quite celebrated in the treatment of scrofulous & rheumatic swelling of joints in chronic diseases of the liver kidnees & other internal organs in palsy & neuralgia it has proved more successful than any other remedy. it has been used with the best of success to promote the absorption of indolent effusion in joints cold tumors &c. The irritation produced by steam is very severe & unmanageable. I have never seen it used — & do not dwell upon it & in leaving this I leave

Counter irritation

In concluding the subject of counter irritation I will remark it has been my object only to take it in a general point of view = without stooping to consider every disease in which this mode of medication has been adopted & the exact stage & dwelling upon every specific virtue which has been attributed it - but to consider in as brief a manner as possible the most noted remedies employed & their most prominent effects & the diseases where this effect has appeared most obvious & conspicuous = In doing this if I have not proved as interesting & original as I could wish or you desire. I trust you will pardon me when I remind you there is not a medical subject but what has been the "theme" of the learned & ingenious of the profession = Who have been so thorough in their investigations & so deep in research & withal so communicative, that they have bearly left a peg where on a student can hang a discourse with any degree of originality = (Fauver, H. Peckham)

East Killingly —— 1842

XIX.

Dissertation on Bronchocele

By
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of Halifax, Yorkshire, England,
Candidate for a License.

On Bronchocele.

Bronchocele, called also tracheocele, goitre, and in England the Derbyshire neck, is a disease of the Thyroid gland.

This gland is an organ which it is difficult to classify, from there being no positive knowledge with regard to its function.

It is situated upon the trachea and consists of two lobes which are placed one on each side of the trachea and are connected with each other by an isthmus, which crosses its upper rings. There is considerable variety in the situation and breadth of this isthmus. In structure the gland appears to be composed of dense cellular parenchyma, enclosing a great number of vessels; it is larger in children and females than in adults and males. It is freely supplied with blood by the superior and inferior thyroideal arteries, and sometimes by an additional one from the arteria innominata and ascending upon the front of the trachea to be distributed to the gland.

Bronchocele in its simple and most common form is merely an enlargement of the gland; in more complicated and rarer cases, and which are seldom seen but in some particular countries, such as Savoy, Switzerland and Derbyshire, the disease increases so far as to present a very large tumor, sometimes hanging down over the chest,

and varying considerably in the pathological state of the part.

Sometimes it is encysted and contains purulent or other matter, at other times the enlarged gland is covered with a mass of adipose substance, or it may have its texture changed and form a sarcomatous tumor. the most common variety on being cut through exhibits a number of cells of different sizes filled with a transparent viscid fluid.

From the change of structure thus observed, it has been conjectured that bronchocele depends upon an increased and vitiated secretion from the gland, which gradually distends its cells, and forms the tumor. others have considered it a dropsy of the gland, from there being occasionally found on dissection a number of capsules filled with water, but usually no such appearances are observed.

Some Authors have endeavored to draw distinction between the several varieties from the pathological state of the parts, but this can not be distinctly ascertained during life, and is probably not of much practical importance.

The enlargement in some cases affects both lobes of the gland, in others one lobe or portions of it only, so as to cause irregular projections on the anterior part of the neck. The swelling is usually rather unequal and is soft and spongy, but no fluctuation is felt; occasionally however it is found to be hard and unyielding, or often to become so after some years.

It is believed that in all cases of bronchocele there is an unusual determination of blood to the part, as there is often a sensible throbbing during life, and after death the bloodvessels are found enlarged, as is particularly seen on injecting them.

The tumor is perfectly non-malignant, usually painless, and in the earlier periods of its existence is somewhat moveable, afterwards becoming more fixed. It is more common in females than in males, and often comes on between the eighth and twelfth years. Some think it more generally appears about the period of puberty, and that it may in some degree be connected with the changes in the system at that period.

The growth of the tumor is slow and gradual for three four or more years, when it often becomes stationary; at other times the size it attains after a lapse of years, is very great, and its weight alone causes considerable inconvenience. The adjacent cellular membrane and lymphatic glands in time participate in the disease, and the whole neck may be enlarged, as high as the ears.

In this case the tumor loses itself in the surrounding parts, the base being so extended as not to be defined. When the disease approaches this size, it generally occasions some unpleasant, if not alarming — symptoms; the skin becomes discolored, the veins of the neck varicose, the face is often flushed, pain is felt in the tumor, and the patient often complains of head-ache; or if the pressure is more on the trachea,

there is difficulty of breathing, especially on exertion or catching cold, and in some cases the compression is so great, that a loud wheezing is heard; the voice may be rendered hoarse, and articulation difficult.

The most dangerous effect of this disease arises from this pressure, since, by disordering the pulmonary circulation, the pulse is rendered irregular and intermitting, and a strong throbbing excited in the region of the heart, followed by fatal disease of the lungs; consequences, often not suspected to have any connexion with the bronchocele, though in reality immediately caused by it; and some writers mention that they have found a connexion between this and cardiac diseases, which probably arise also from the disordered circulation.

The causes of bronchocele are little known and much discussion has arisen upon the subject. Many theories have been advanced but none are satisfactory. In some countries the popular opinion is that it is the effect of drinking snow water, and in others it is ascribed to the water of saline springs, but extensive observations have determined that these can not be the causes. That it is not the former is proved by the fact that bronchocele is common in Java, Sumatra, and other hot countries where snow is never seen, and that in Lapland and Greenland where snow water is almost exclusively used, the disease is almost unknown. The evidence against the agency of saline and calcareous waters is equally conclusive, for in

neighbouring countries in England, where the Geological formation, and the impregnation of water is similar, the disease is common in some and not in others.

Most Authors agree in conceiving this disease as altogether a local one, and that it is frequently hereditary. As it often accompanies Scrofula it was formerly thought to be a scrofulous tumor, and many now consider it an indication of a strumous habit. Like scrofula it is usually seen in persons of lax fibre, and in those who have fair and delicate skins. There are however many points of difference to convince us that bronchocele is quite independent of Scrofula, some of the most prominent of which I enumerate.

Firstly. The true bronchocele is simply a local disease of the neck, the constitution being unaffected; on the contrary scrofula extends its ravages to the whole system involving not only lymphatic glands and soft parts, but even cartilages and bones.

Secondly. Though both diseases occur chiefly in young subjects, bronchocele often begins at a later age than scrofula, and unlike the latter does not disappear as the patient approaches puberty and gains strength.

Thirdly. Scrofulous glands often suppurate and ulcerate; bronchocele very rarely does so.

Fourthly. Scrofula is often cured by nature and seldom by art; the

contrary is true of bronchocele.

Fifthly. Scrofula is said to be always hereditary. bronchocele is not always so. no healthy person becomes scrofulous by living among scrofulous people: but many persons contract bronchocele by going from a country where the disease is unknown to one where it commonly prevails.

Thus many reasons exist for its being considered a distinct disease, its causes are yet very obscure, especially as the function of the gland is unknown but it is now generally considered that humidity is, if not a cause, a necessary condition for its development. It prevails more or less in every part of the world, in hot and in cold regions, and among every class of persons. It is most common in some mountainous countries, but rather in the vallies enclosed by mountains than in the elevated regions; as in the vallies of Switzerland.

In America it is said chiefly to prevail where the lands are uncleared, and as the clearing takes place, and the wet lands are drained, it is found to decline. Those individuals who are exposed unguardedly to the vicissitudes of the weather are most subject to its attack.

The extensive prevalence of this disease, and the obstinacy with which it ordinarily resists medical treatment prove that proper principles for its treatment are as yet but little known.

Every plan which ingenuity could suggest, or caprice devise, has

been tried, and often tried in vain.

To entertain a sanguine hope of cure, the disease must be in an incipient state, for when the morbid structure of the part, has been thoroughly established, the chance of removing it is very doubtful

The treatment to be adopted should be both Constitutional and local, and a prolonged course of medication is required before much effect can be seen. The constitutional treatment should be with a view to remove vitiated secretions, and to excite the organs to their natural and easy functions. The state of the chylopoietic viscera should first engage our attention; purgation will generally be necessary in the commencement of the treatment, after this alteratives may often be employed with advantage, care being taken not to reduce the system too much. Some have commenced with the exhibition of an Emetic, followed by a cathartic dose of Calomel;- if the patient is of moderate strength the emetic may be indicated, but in weak persons and delicate females it might not be useful.

A mode of treatment formerly very much practiced was to commence as above mentioned, and then to rely upon the efficacy of burnt sponge, which was vaunted as a specific. It was considered most effectual when given in form of electuary or lozenge and allowed to dissolve slowly in the mouth:- the lozenge was composed of equal parts of burnt sponge burnt cork, and pumice stone. Thirty grains of this compound were

mixed with syrup to a proper consistence, and this formed one dose; which was repeated daily, with the occasional repetition of the dose of Calomel. In some cases this treatment succeeded.

The efficacy of burnt sponge was by some thought to be in the alkali, and by others in the carbon contained in it, but probably its action was owing solely to the small and varying proportion of Iodine it contained. Since the discovery of Iodine, and its application to medicinal purposes, it has been extensively used in this disease, both alone and in combination with other substances, and has superseded the use of the burnt sponge. Its chief action being to promote absorption and to lessen the bulk of glands, it seems adapted for this disease and is certainly the best remedy yet discovered. It has been used both generally and locally. The most usual preparation for internal administration is either in form of an aqueous solution of Iodide of Potassium simply, or with a quantity of free Iodine added to it. Iodine is nearly quite insoluble in pure Water, but freely soluble in a solution of Iodide of Potassium.

Dr. Coindet of Geneva who was one of the first to bring Iodine to the notice of the Profession, as a remedy for Bronchocele, used the following formula and with considerable success.

Take of Iodine 10 grs.; of Iodide of Potassium 36 grs.; of Water ℥j. Dissolve, and give 5 to 10 drops in syrup three times a day gradually and carefully increasing the dose.

Latterly Iodine has been given much more freely than in this formula. A common mode of practice in England is to commence with a cathartic, and then to give half a grain of Iodine, with three grains of Iodide of Potassium in Water, two or three times a day, gradually increasing the dose;. at the same time some give a compound Calomel pill every other night as an alterative, and direct the tumor to be rubbed every night with an Ointment composed of 5 grains of Iodine, 30 grains of Iodide of Potassium and ℥j of Cerate. I have also seen benefit result from the internal remedies just mentioned assisted by the local application of an ointment of five to ten grains of the Deutiodide of Mercury with ℥j of Cerate. this application is preferred to the other by the patient as the skin is not discolored by it.

If the tumor becomes painful, the topical application of leeches is of great use, and when the leech-bites have healed, the use of the ointment may be resumed, if the pain does not return.

Inflammation and suppuration of the tumor is said sometimes to occur; this is not common, and when it does take place is usually I believe in the cellular substance covering the gland, and not often in that body itself;. it may be treated as abscesses generally.

When the tumor is rapidly increasing as it sometimes does after attaining a moderate size, a good mode of treatment is to apply a few leeches around the tumor, once in every three four or six days,

according to the urgency of the case; this usually checks the increase temporarily, and makes a favorable opening for the exhibition of remedies. Alteratives are now proper, and cathartics may be useful.

In one case of this kind, the application of a few leeches gave great relief to the patient, a male adult. they were reapplied about twice a week. He took every alternate night eight grains of Compound Calomel pill, and three times a day ℞ drops of Liquor Muriatis Calcis in water. this treatment was continued for about six weeks when the tumor was reduced to a smaller size than it had been for years, after which I lost sight of him.

Other external means are occasionally used as the topical application of cold water, frequent and long-continued frictions with the hand, a coarse towel, or some lubricating substance, the intention being to promote absorption, and with the same view it is often recommended that the patient should wear a piece of velvet, hare's skin or a similar substance round the neck, to keep up a constant and gentle friction. Some have tried the constant and steady application of pressure upon the tumor, and a few cases are reported to have been successful; probably however but few patients could bear the necessary pressure for a sufficient length of time.

The general health of the patient should be attended to, and as this disease usually occurs in the delicate, the diet should be light

and nutritious, moderate exercise should be employed, warm clothing should be worn, and care as to exposure to the weather must be exercised.

Warm sea bathing is often useful and if the system is sufficiently vigorous to re-act, the cold bath may be employed; - if the case is - obstinate and circumstances will allow, the removal to a warmer - atmosphere may be advised, and will often be beneficial.

When medication has been tried and has failed, the knife has been resorted to for a removal, but the result of these cases has been such as to deter most Surgeons from attempting the operation.

The greatest obstacle to its success is the free and rapid hemorrhage which takes place from the many ramifications of the thyroideal - arteries and which are much enlarged. This hemorrhage has in some instances been so great as to cause the patient's death and in others to deter the Surgeon from concluding the operation.

Two other modes of surgical treatment have been devised; one is to tie the superior thyroideal arteries, to diminish the supply of blood; in some instances this has effected a diminution of the tumor: - the other plan consists in passing a seton through the body of the gland. Several cases of partial, and one or two of complete relief from this operation, were brought under the notice of the profession a few years ago; but as in other cases the seton caused a high degree of irritation, rendering its immediate removal imperative, the practice

has not been remain adopted -

In conclusion I may express a hope that as Medical Science advances this disease may be brought to yield more frequently to our Art, and that it may not long remain an "Opprobrium Medicinæ".

Wm. Tempest.

XX.

Dissertation
on
The Unity of the Organic System.

By
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Thesis

Of the Unity of the Organic System.

If Character the unity of the intelligent faculty, Temperament, the balance of the active powers, and Diathesis, the condition of the organic functions, are associated under a single law of analogy. They will exactly occupy the debateable ground lying as yet unapportioned, between the provinces of Physiology and General Anatomy. The doctrine of an unity among the Vital powers gives a rational ground for their connection in a Whole. The recent progress of Chemical Physiology having discovered laws of mutual dependence, between the properties of inanimate elements, and the several conditions of the organisme, the inquiry may be at least begun upon what ground these conditions harmonize among

themselves.

If we adopt the classification of organic solids established by Cuvier and De Blainville, including all under the three heads of Nervous, Muscular, and Cellular substance, the first will be characterized, in relation to the others, by possessing the highest degree of Symmetry, Similarity, and Permanence of elements.

The nervous system, therefore, pre-eminently, is characteristic of an animal a species and an individual.

The muscular system, although next in order of permanency with regard to its elements, is subject to much greater variety both of volume and distribution.

The principle seat of metamorphosis in form and size is in the cellular substance, under all its conditions, bone, cartilage, and tissue.

That the unity of a system may be comprehended, its variety must have been distinctly understood. If the variety be false the unity must be a merely logical and consequently useless conception. To make good then an idea of the organic system as an whole, it will be necessary to find a natural foundation for the distinction of its parts, and some method of analogy which will place that distinction in an obvious light.

The animal body is physically speaking a compacted whole: no part can be thought of which has no connection with the rest. Every system pervades every part: But in the prevalence in a part, of any one system there is a difference of degree and kind. Thus in the head Brain and nerves occupy the whole space; in the limbs and parietes, are chiefly collected the substances of animal and

in the abdomen of organic life.

Every system is believed to have a functional relation with every other. That portion of the nervous mass which is found to harmonize with the degree of intellect and instinct, is found to be functionally connected with the part attributed to Animal, or active and sensitive, life. A third very obscure region, lies in connection with the organic functions. The nervous system has then it appears three very natural regions or subsystems.

1. The Encephalic. Belonging to instinct and intelligence.

2. The Spinal Marrow with the Med. Oblongata and their appendages. Belonging to the Special and common senses — motion and sensation. Functionally connected with the Encephalic, on the one side and on the other with the organic nervous system.

3. The Organic Nervous system. Belonging to all the operations of Formation Secretion and Absorption, generally, or of particular organs. Connected functionally on the one side with the Encephalon (its inferior ganglionary parts) and on the other with the nerves of Animal life.

It is necessary to the Idea of organisation, or "unity founded in variety", that every part be more or less in connection with every other. From this arises the universal law of natural classification—

Law A — That every inferior system is subject to a distinction of its parts analogous with the distinction of the parts of the whole.

The perfect agreement observable between the general division of organic substances first given, and the particular functional classification of nerves which no one can deny to be natural leads to the conclu

sion that both are founded in nature; for they confirm one another.

The present is not a fit occasion to enter upon the labyrinth of organic Morphology. By the laws already given we are guided successfully through the whole.

The analysis of the cerebral functions upon the method of the same law, yields several distinct forms, elements, or Powers. The intelligence of the animal being in place of a law for the guidance and control of its existence, will manifest itself in many forms characterised by their relation with the active and organic systems:

1. Powers connected with the pure Intelligence.

Intelligent Faculty.

2. Powers connected with the active abilities.

(a) 3. Powers subservient to the organic functions.

The unity of these powers assuming by preponderance of one or other part a marked

and characteristical shape constitutes Character.

Temperament harmonizes with, but cannot as some have imagined suppress or exalt character; a supposition at variance with the unity of the organic Whole, which demands that every part agree with every other in function and condition. The only reasonable kind of relation imaginable between Character and Temperament is suggested by the Law of Analogies. (A).

Analysis, (by virtue of the same law), will distinguish several orders or great kinds of Temperament, these in their turn falling into grades and degrees. The balance of the Whole must be determined in unison with Character. A highly exalted intelligence of the Pure kind, with a feeble "active"(a) mental ability, will not be attended with a highly active temperament; because that were a violation of the Law (A). and the Unity.

The animal senses, sight, hearing, and Touch (common or special), present a series of activity approaching nearest to intelligent Powers. The whole system of the active faculties of animal life may then be resolved into,

— 1. The Perceptive. All the Senses and their organisms: related to Intelligence.

— 2. The Ergastic. All the means of physical performance, under voluntary or Automatic stimulus.

3. The Formative or Organic. The Digestive, the Plastic, and Generical Activities.

These may be again resolved according to the Law (A).

If A is no longer doubtfull upon whose ground the Unity of the Active Powers and of Character may be anticipated.

Having thus ascertained a clue or method of analysis, by which the Physiologist need not fail in laying open the whole system

of the Vital Powers and the principle of their harmony and mutual support; we may attempt, with much doubt & surmise, a still darker map of Physiological Morphology. The analogy of Temperament and Character with Diathesis.

This term has several different applications; it is confounded, in many instances with Temperament; with the external causes of disease; with disease itself. In the right acceptation there are at least three distinct modes of Diathesis.

1. A predisposition to certain forms of constitutional disease, by inheritance. (Strumous, Cancerous &c.)
2. Predisposition to endemic and epidemic disorder - neighbourhood and society with state of Mind. (Cause unknown.)
3. Predisposition to the reception of poisons and contagious disease. (Habit of body - i.e. circulation and organic nervous system)

If diathesis is defined the mere substratum of disease, or its possibility in general, it means nothing more than organisation; every thing organised being subject to disorganisation: it is then not the groundwork or possibility of the disorganisation or malorganisation in general, but of its Form or kind.

The number of forms will of necessity determine the number of diatheses in a systematic arrangement.

The number of forms must be themselves determined by the variety of the substance. Why should not the forms of diathesis be found in harmony with the whole constitution of the Animal? A predisposition to certain mental conditions we term "Character". A predisposition to certain kinds and degrees of activity we name "Temperament" There is no word left for the predisposition to particular organic conditions but "Diathesis". If all disease is founded

in Diathesis The conclusion is that all disease must be organic: In other words, we should not speak of 'diseases' of the Mind, nor of the active Powers, but limit the term, as already shown, to the organic condition.

The actions determined by will & mark the Character: The motion, outline of the body, Temperament: both only in the degree of their deviation from the universal Idea of Humanity. Disease in like manner, a deviation from the 'normal condition', (itself an Idea merely) marks Diathesis.

An à priori or even physiological determination of diathesis, otherwise than by its signs is therefore impossible. The manifestations of disease are said to be numberless: whatever their number in particulars, they are in general few and simple; all their signs being either of the mental, active and sensitive, or, of the organic character. All diathesis will then have a relation

with one or another of these forms. We obtain-

1. Diathesis of the Encephalic organs.
2. Diathesis of the Active and Sensitive Vascular System.
3. Diathesis of the Organic system.

We find it impossible to conceive otherwise of "disease" than as at first functional. What then is it else than a false relation between the several organisms or systems of the body, whose harmony constitutes the normal or healthy state? But disease, we have seen, is at the same time properly organic, taking its rise in the organic processes. Diathesis is, therefore, a certain equilibrium of the plastic powers, deviating through excess of one, from the perfect adjustment of all; disease arising within the circle of the deficient function, will then be first manifested in its immediate dependencies, and extend in proportion to the breadth of its source

The number of diathetical conditions although as to grade and degree they may be infinite, in kind will be few and simple; if we have recognised a just principle for their determination.

Character from the number of its elements is subject to a prodigious variety, although any one element may have ever so small a degree of variation beyond or within the ideal limit. At the same time the varieties of Character, from the distinctness of its parts, are strongly marked and permanent through the permanency of the Cerebral system to which they belong. The active powers vary within a larger circle, and from a less perfect distinction of their elements, have fewer positive kinds of difference, with this wider range of degree. The elements of Temperament are fewer than the types of Character: at the

same time they are more numerous and positive than the forms of diathesis, while these last for the same reason, vary almost infinitely in degree. Here a remarkable conclusion—

The full investigation of Character should enable the Physiologist to anticipate the ~~diathesis~~ Temperament; and through the latter he should be able (under the same condition of a full investigation) to determine the diathesis. But, reversing the process of observation, Diathesis can never more than partially determine the temperament; and this latter will merely set bias very general limits to the anticipation of Character. It appears that in Physiological as in other kinds of discussion or analogic reasoning, the highest conception embraces and fully determines the inferior circumstance. But to return—

we may observe at one view the analogic relation of the three organic condi-

tions, or as they might be styled 'Predicaments' of the Organism. Their detail and proof would fill a volume, but as results they may be presented in a tabular form.

"Outline of the
Elements of Character."

"1. Perceptions.

1. Common perceptions of ~~the existe~~ phenomena of Time Space and Substance.
2. Esthetical perceptions. Color, Melody &c.
3. Sensuous perceptions. Taste &c. "

"2. Intelligent perceptions of Relation.

1.' Common understanding.
2.' "Taste".
3.' 1. Provisional Instincts. 2. Passions. 3. Affections."

"3. Moral perceptions of Concurrence.

1." Of the social.
2." Of the self determining.
3." Of the approbative. "

This kind of analysis of Character is purely Physiological, and must not be confounded with any metaphysical theory which might

might arise from it.

Table of Temperaments

1. Intelligential. Intuitive. Man. Analogies. Intellect.
   1. Sensuous Temperament.
      1. Perceptive. Understanding. Prov. Inst.
      2. Esthetical. Taste. Passions.
      3. Sensual. Affections.
   2. Apprehensive or Active. Understanding.
   3. Passive or Inert. Meditative. Melancholic.
2. Animal Temperament. Ferae. ~~[illegible]~~
   1. Activity of the Senses. Keenness & Rapidity.
   2. Activity of Motor system. '~~Sensitive soft~~'.
   3. Activity of the assimilative organs.
3. Organic Temperaments.
   (a). Circulation.
      1. The "Sanguine". Arterial system. Birds. Ferae
      2. The "Billious". Portal & venous syst generally, with active absorption. Reptilia.
      3. The Lymphatic. Deficient absorption. Mollusks.
   (b). Digestion. (Function of.)
      1. "Epicurean" Temperament. Saliv. glands, taste &c. highly susceptible. ~~[illegible]~~
      2. Dig. function regular and powerfull. no tendency to corpulence – Anal. Billious Temp.
      3. Large abdominal viscera – ~~[illegible]~~ Lymphatic – inert.

(c) Reproductive function.

1. Great susceptibility with moderate reproductive power.
2. Moderate susceptibil.. excessive salacity.
3. Generative power feeble - insusceptible.

It is unnecessary to dwell upon the very obvious analogies connecting the above tables.

Diathesis is taken to mean a condition of excess, misdirection, or defect in the action and influence of the organic systems in their formative, ~~circulation~~ secernent, and plastic (absorbent) ~~capacity~~ processes.

General Diatheses.

1. Excess, misdirection, or defect of the Formative or Nutrient power of ("vegetative") life.
2. Excess, irregularity, or defect in the secernent processes - universally or particularly.
3. Excess, misdirection, or defect of the Plastic or absorbent power.

(a) The first is manifested in the period of infancy and childhood, in strumous, or morbidly

corpulent, or dropsical diatheses, and in the production of monstrous and morbid growths.

(b). The second is manifested in the various irregularities and "proteus" diseases of adult age, and puberty.

(c) The third is chiefly manifest in the rigidity and coarseness of Billious habits, in the characteristic feebleness of old age, and the idiocy of that period; which is attended with a diminution of the cerebrum.

The next point to be observed after this general view, is the harmony of Temperament with diatheses; not that this should excite surprise, for we can hardly imagine how it should not be the fact; but with a view to some more obvious ground of observation for the determination of those grades and degrees of the general conditions noticed in the last table, which pass under the name of diatheses or predisposition in the more common acceptation.

Three kinds of predisposition to disease have been already recognised (page 9): of these the first only can be regarded as purely constitutional, the others depending in great measure upon outward influence. Distinctions in the systems of the organs yield a further ground of classification. (page 12).

A powerfull development of the nervous and cerebral system as a whole, implies a diathesis of the third kind and as a consequence, an early maturity and moderate size of body. (p. 17. 3), The leading temperament is in this instance the Bilious; in Character the predominant traits are (see table) The perceptions (1), the common understanding (2. 1′), the self determining (3. 2″). The provisional instincts (2. 3′. 1.). Life is in this form often long lived, and is invariably active. Extending the analogy to inferior animals, the whole class Reptilia, of Birds the Hawks Eagles and Vultures, among quadru-

peds the Ungulate, and among Ferae the Dog, Wolf, and Fox, are marked by the fine clear perceptions, the persevering habit, and Bilious Temperament of this form; their diathesis is less known, but we may remark that dog cold blooded animals are not subject to inflammations after wounds; and that in man the Bilious habit is perhaps least of all subject to malignant inflammatory affections. The full developement of these analogies would lead through an immeasurable detail. Enough perhaps has been already said to evince the perfect agreement, founded in a necessity, of all the organic systems and their several conditions. ———————————

——————————— Whatever function has long predominated its superiority should be manifested in the whole. The dominant trait of intellect, the leading temperament, the prevalent diathesis, must show their influence

not only in their own immediate circle, but in the form and condition of the whole organism. Nature winces the unity of her system in nothing more than in the absorption of extraneous or useless parts.

The harmony of the organic whole has been long known in one of its forms under the name of the "balance of organs". As the body is adapted to the mind, so is every inferior system adapted to the superior. In the comparison of individuals of different species, a unity amounting to identity of plan is discovered. Certain organs correspond more or less perfectly; the same relation to a law of form common to both, is observed in each.

It has been concluded that the world of living substance rests under but one law of life, its differences lying in degree only. The establishment of such a theory of life must prove unfortunate for the advan-

cement of speculative and even of practical science; at the same time no clear demonstration of its absurdity has been attempted.

Let us imagine the organic body composed of a single substance, nervous matter for example. It cannot be then thought of as possessing a variety, either of parts or shape. But it has at least three elements perfectly distinct in kind, although developed by succession from but one original. Through variety of its component substances we are at once enabled to conceive a variety of structure; in other words organisation ceases in some degree to be a mystery. The three elements are not known to possess any crystallogenic affinity; the body is not then a product of such affinity. Notwithstanding this apparent indifference, wherever the three element are found together in an organism, they present one inva-

riable kind of arrangement among themselves, one order of parts. Through the whole gradation of species, no other difference is observed than what might seem to arise from difference in the proportion of the tissues one to another the least in the scale representing the least of the nervous and muscular in proportion to the cellular substance. Nothing then hinders the adoption of Lamark's theory. Species may pass into each other by slow change in the proportion of their elementary substances. We know that such changes have place, but in no instance have they been observed to exceed the limit of one species in the direction of another. But even this may be looked upon as an evidence of the creation of new forms, and that all imaginable forms may be assumed upon this, transformations of one.

The refutation of this hypo-

Thesis must be founded in the ground of the hypothesis itself, the nature of human reason; for no speculation of that nature is in danger of refutation by experience.

Cellular tissue, as in vegetable as in animal organisation is understood to be the basis or primal element, from which all parts take their origin and form. Nothing on the other hand can be imagined to give rise to cellular tissue or the primary cellule, but the organism itself, for this substance containing something of all in its nature it is either created, or produced from something capable to of conferring upon it this complex capability, this latent productiveness. If species were created the supposition of their production one from another is needless. for the creative power that produced one should produce all, and as they are. If they were not created

then are species infinite in existence, and all should have long since attained perfection.

But perhaps a constant series of production has been advancing from the infinite past; & the limit, being perpetually attained, each successive race fails and is lost. If this be true, the germ of all animated nature is a production from inorganic elements, the molecules of matter shaped by their elective affinities. Life then and the harmony of living forms lies in the particles of matter and is their property. But these "particles of matter" are fictions of understanding: the question then is, whether it be reasonable or possible to confound in one conception, the substantial properties of inert matter and the harmony of organised existences which with unceasing change of substance maintains a perpetuity of forms. Suppose then that the chemical affinities of so many pounds

of Carbon, Oxygen, and the like, shall, with without aid from other powers, have produced a man, how is it that the same elements upon another occasion may initiate a monkey? But their proportion in the two cases differs enough to account even for that difference. True it is different in the adults; of that we are certain; and probably it differs as much in degree in the germ; but perhaps all germs may be alike. In either case why does the animal resemble the Parent? For if all germs be alike, then are all forms due to a power extraneous, and by no means vested in the substance of germs; but if germs like adults resemble the parent in the proportion of their elements, then it is impossible that species should ever vary so much as the breadth of a hair: for the parent has been made the sole cause of the organic harmony. No species could produce

any thing unlike itself. It is evident, when we observe that species have on the other hand a degree of variation within which however they remain constant, that a new fiction of understanding must be essential to the comprehension of life, of which the essence is not a substance or collection of properties invested with unity, but a permanent Cause, invested with substantiality, a perpetual succession of changes to sustain one result the Organism. This has been termed variously: But the true Idea of Life is fundamental in the nature of Mind. Its necessity rests upon one ground with the notion of Gravitation. ———

——— Like causes produce like effects, provided they act upon like substance, but if the substances differ, still the results though different, will harmonise through the unity of their cause.

Earth and a metal differ in substance but harmonize through gravitation.

1. The Life of the Species is then the source of its permanence & the cause of its existence. Through that one life, all its members are one.

2. But the cause of the Form lies also in the kind of substance and its variety. Hence through the life of each species be a law only to itself, all species will resemble one another in form so far as their substance and its variety are similar. They are of necessity developed upon a single plan.

3. But the various parts of the individual body not only harmonize but repeat one another; this they owe to their common origin in the germ, a simple element, as to form, but, when reduced into a variety by the Plastic Power, unfolding itself in various shapes.

James D. Whelpley.

XXI.

Dissertation on Phthisis Pulmonalis.

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Phthisis Pulmonalis -

— its causes

and means of prevention.

The word Phthisis is derived from the Greek "Φθιο" to consume. By the term consumption is denoted any waste of the system or powers of life. Hoosack makes three varieties or species.

1st Phthisis pulmonalis or that form which arises from a diseased state of the lungs, and which is usually accompanied with hectic fever.

2nd Tabes or emaciation without cough or any disease of parts contained within the chest, but attended with hectic arising from disease of some other part of the body, as the forming of large abscesses.

3d Atrophia, which is occasioned by defective nourishment or excessive discharges, but without hectic.

We propose to consider the first variety or phthisis Pulmonalis. The melancholy prevalence of this disease - its increasing frequency - the insidious nature of its attack and the great probability, I had almost said certainty of a fatal result, throw around the subject a deep and -

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peculiar interest. From the time of Hippocrates down to the present day comprising a period of more than two thousand years, it has been the same deadly malady, baffling every variety and mode of treatment and gaining for itself, the well-merited epithet "opprobium medicorum" It attacks persons of both sexes and of every condition in life. The rich and the poor are alike exposed to this relentless destroyer. Rank and age present no barrier to man consumption. Often too, with fatal aim, it selects its victims from among the fairest and most talented of men and many a bud of rare promise is nipped when just bursting into the fulness and freshness of being. Its ravages are confined to no climate or country - the multitude of its victims proclaim its wide-spread prevalence. From our bills of mortality and other sources of information, we learn that of the two hundred and fifty thousand deaths, which are annually occurring in the United States, at the least calculation, fifty thousand or one fifth are from consumption. The mortality too is greater in some sections of the country than in others - thus it is greater in the Northern and Eastern States than it is in Southern and Western. In the Eastern cities especially, consumption is exceedingly common, but as we advance southward fevers and bilious diseases increase, while consumption decreases. Still the disease prevails to a great extent in warm climates. From the reports of travellers

and residents, it appears that cases of consumption are rare in the western parts of the country. Says Dr Flint in his geography of the valley of the Mississippi "pulmonary consumption is a very uncommon disease, not often witnessed in the northern region of the western country. Fifty persons fall victims to this terrible destroyer in the Atlantic country to one here." Though this statement cannot be relied upon as strictly correct, still it shows it to be a rare disease. Consumption is more common also in proportion to the population, in cities, than in the country, showing that the causes of the disease are more rife in the former than in the latter. In Great Britain, it is estimated that one fourth of the whole number of deaths are from consumption. The same is true on the continent. Laennec states that in Paris and the great interior cities of France the proportion of deaths from phthisis are well known to be one in four or five.

Having thus taken a brief view of the prevalence of the disease under consideration, we come to the question "can consumption be cured? This we shall dispose of in as few words as possible. Medical men of all ages have bestowed much time and study to the investigation of this disease. the results of their inquiries have been various. Most agree in considering tubercular consumption incurable by art; yet it appeared on the authority of Laennec, that in some cases a spontaneous cure has taken place even after ulceration, but

these cases are exceedingly rare and are to be regarded as exceptions. The history of the disease presents a mass of visionary theories and inconsistent speculations. Every variety of treatment has been resorted to, and in not a few instances, the practice to say the least has been directed upon empiricism. Digitalis and iodine once sovereign remedies for consumption have had their day and we are constrained to admit that the general tendency of tubercular disease of the lungs is to death and that if it is not arrested, it will advance with the same unerring certainty that the sun proceeds on his daily round.

The utter uselessness of any remedial measures heretofore employed ought to be a sufficient inducement to every person and especially to medical men to endeavor to discover some other method of remedying the evil. This in the words of another can only be done by directing the attention to such measures as are calculated to prevent to prevent the hereditary transmission of the morbid state in which the formal disease originates and to correct the predisposition to it in infancy and youth. Accordingly in the few remarks I have to offer, after having briefly spoken on the anatomy, their functions, the pathology and symptoms of consumption, I shall not enter upon any account of the particular remedies which have been used in the treatment of tuberculous disease, but shall

confine myself to the causes and means of prevention. And when we reflect that the greatest minds, & the long study, have been unable to devise any mode of treatment by which the progress of consumption, when once fixed in the system, can be arrested, the subject of prevention becomes one of absorbing interest.

The lungs are the organs of respiration, and communicate externally with the atmosphere, by means of the trachea. They fill completely the cavity of the chest - are extremely vascular and are covered with a delicate membrane - the pleura. The substance of the lungs is made up of an innumerable number of minute cells connected together by means of extremely delicate cellular substance. These cells are the terminations of the bronchial vessels. On their delicate surfaces are spread the capillaries of the pulmonary arteries, veins and nerves. The lungs have a peculiar, soft emphysematous feel and are so light as to float in water. Their color is grey, mottled with a slaty dark hue

It is the function of the lungs to produce certain changes in the blood - the due accomplishment of which is necessary for the support of life. This change is effected by the inhaled air coming in contact with the capillary vessels ramifying on the surface of the air-cells. The soft and yielding tissue of the lungs, admits the free and uninterrupted entrance of the air, which instantaneously circulates through the various parts of their substance. To enter upon any ex-

extended remarks on the physiology of respiration would be manifestly out of place and we proceed to speak of the pathology of the disease under consideration.

The morbid appearance most commonly found in the lungs is that of tubercles. These are firm white bodies of a somewhat oval form, interspersed through their substance. According to "Baillie" they are probably formed in the cellular structure which connects the air-cells of the lungs together and are not a morbid affection of the glands as has been frequently imagined. There is no glandular structure in the cellular connecting membrane of the lung, and on the inside of the trachea, where there are follicles, tubercles have never been found." Tubercles are at first of very small size - they adhere to the lung - have no evident capsules and possess little or no vascularity - when cut into, they present a firm white texture and they often, in part contain a thick, curd-like pus and not unfrequently according to some authors an opium substance. Sometimes the matter is found to resemble very much that which is discharged from a common sore. Often-times the portion of the lung in the interstices between the tubercles is found to be of a firm and solid texture; this is not always the case, and on many occasions the structure of the lungs in the immediate neighborhood of the tubercle will be found unchanged, none of the cells being closed by adhesions.

In their first stage, tubercles as before remarked are small

about the size of a millet seed, hence by some authors called miliary tubercles. As they increase in size they become yellow and opake - sometimes they appear in clusters - the smaller tubercles in a cluster sometimes grow together and in this manner form a large tubercle. The softening seems to commence in the center and the matter works its way into some of the bronchial passages, leaving a true tubercular cavity, the internal surface of which is lined by a soft delicate false membrane. In some cases, says Martinet, "pulmonary tubercles are contained in cysts, semi cartilaginous in their texture, firmly adherent to the tissue of the lung by their external surface but smooth and polished on their internals."

The lungs of very young children sometimes present the appearance of tubercles, but as is stated by Baillie "they occur most frequently a short time before the completion of the growth." Sometimes on cutting into the substance of the lungs a considerable portion will be found to present the appearance of a scrofulous gland beginning to suppurate - this seems to be the same matter with that of the tubercle, only diffused over a considerable space while that of the tubercle remains circumscribed.

According to Eberle, tubercular phthisis rarely occurs except in persons of a strumous diathesis and his opinion coincides with that of Armstrong, who considers it a matter of doubt whether tuberculous matter be ever formed in the lungs —

without a constitutional or hereditary predisposition to them. It is however well ascertained that whenever this predisposition does exist, any irritating cause may give rise to the deposition of tuberculous matter. Depositions of tuberculous matter does not inevitably lead to consumption - they may remain in a dormant state and produce no unpleasant symptoms.

The incipient symptoms of phthisis vary with the cause of the disease. When it arises from tubercles it is mostly thus marked - at first there is a short, dry cough, so slight as to become habitual before it is noticed by the patient. This cough is excited by the least change of atmosphere, showing an increased sensibility of the lungs - it is generally most severe in the morning when the patient rises from bed - is excited by change of dress - by going into the open air. The breathing is, at this time, in some degree impeded, and is hurried by the least extra-bodily exertion, as walking rapidly - going up a flight of stairs &c. Now also there is pain in the chest - stitches are felt in the sides and under the sternum, and as the disease advances, the side frequently becomes so affected that the patient experiences some difficulty in lying upon the side, in which the pain is felt. It is often the case, however that patients complain of no pain at all, but rather a soreness or rawness, as it were, of parts contained in the chest, and an unpleasant sensation is often felt on the inspiration of fresh air. Sometimes the disagreeable sensation amounts to nothing

more than a sense of tension or stricture across the chest.
The pulse is generally frequent, small and easily compressed.
in very many cases it will be found to vary but little from the
natural healthy standard.
The excretions are more or less disturbed - the patient complains
of thirst - the tongue becomes dry and liquids are desired. In
the female, the function of menstruation is disordered - often
exciting great alarm in the minds of the patient and her
friends. This disturbance of the menses is in its turn the
source of still more irritation, as it causes an increas-
-ed flow of blood to the lungs, already morbidly sensitive
and frequently leads to hemoptysis and other symp-
-toms of pneumonic inflammation.
As the disease advances, the breathing becomes more and
more difficult - the patient now passes restless nights. At
this time an expectoration of frothy mucus appears, which
after a while becomes yellow, viscid and opake.
The albuginea of the eye assumes a peculiar, pearly white-
-ness - at the same time the pupil has an unnatural bril-
-liancy - the teeth are remarkable for their whiteness and
freedom from any deposition. The mouth and fauces become
dry in the afternoon - slight chills are felt - the face be-
-gins to flush - the pulse becomes small and hard - the
urine is high-colored and deposits a brassy sediment -
the febrile paroxysms towards morning, terminate by pro-
-fuse sweats, which leave the patient exhausted - the tongue

is often, at this time, preternaturally clean. The sputa assume the appearance of pus of a dull white color or yellow with a greenish cast. In a word, fever of the hectic form is now completely developed. By the fever and the sweating the patient is entirely exhausted - he now perceives general emaciation - the extremities are shrunken - the hair falls off - the nails become curved - colliquative diarrhea - the consequence, according to Rosacks, of a diminished action of the absorbent system and an impaired communication between the arteries and veins," sets in - the patient sinks rapidly and death, in a short time closes the scene.

The causes of phthisis are either predisposing or exciting. Among the former, a morbid state of the constitution inherited from one or both parents is perhaps the most frequent. Scrofulous and dyspeptic affections, according to Sir J. Clarke are among the chief predisposing causes of tubercular disease of the lungs. These latter may exist in either parent, and be transmitted to their offspring or they may exist primarily in the child itself. A peculiar conformation of the chest - one uncommonly flattened - with a delicate frame of body - may predispose to phthisis. Examples of this cause are numerous. Rostan mentions a family, in which all the children died of consumption. The "parents," he states, "were brought up to habits of great labor and exertion - they enjoyed good health, possessing all the vigor that active industry is calculated to secure, - but the parents

becoming rich, the children were indulged in indolence and every luxury, which life can afford or whim or fashion suggest. "They have all" he adds, "but a single member of this family fallen victims to phthisis, induced by slight exciting cause, operating upon a delicate and susceptible frame of body."

The sanguineous temperament is by some authors considered a predisposing cause of phthisis. This temperament is characterized by light hair, great brilliancy of complexion, light blue eyes - great delicacy of fibre - large veins - tumid upper lip - weak voice &c. Persons of this temperament are readily affected by cold and other causes which act to check the excretions of the system.

A predisposition to phthisis may also arise from debility - the effect of any excessive evacuation. as in the case of females from long suckling of infants - leucorrhea - menorrhagia &c. Debility from want of accustomed stimuli may produce this disease. Prisoners deprived of their accustomed indulgence in food and spirituous liquors and their exercise in the open air, not unfrequently die of phthisis produced by these causes.

A variable climate also predisposes to tubercular disease - Some writers say a moist climate frequently induces the disease, but this does not seem to be the fact, for in Holland, consumption is by no means a prevalent disease and a statement is made by Thomas in his "practice of Medicine that the inhabitants of the fenny part of Lincolnshire are much less subject to phthisis than those living among the highlands of the same county. The northern Atlantic

21.

coast of our own country, may be cited as an example of a variable climate predisposing to the disease.

Some diseases, as measles, small-pox, syphilis, predispose to phthisis - so also repelled eruptions - diseases arising from the excessive use of mercury - the suppression of any discharge to which, the system has been long accustomed, as the rapid healing of old ulcers - the suppression of the menstrual discharge.

Certain employments exposing laborers to dust - fumes of metals, - as needle-pointers - stone-cutters turners of metals particularly of brass - millers &c induce a predisposition to pulmonary consumption. In the fifth volume of the memoirs of the London medical society as quoted in Thomas' practice, "we are informed that persons employed, in the pointing of needles, by dry grinding them, are quickly affected by pulmonary complaints such as cough with purulent and bloody expectoration: and that they scarcely ever attain the age of forty years." Dr Millan also in his reports states that "hair dressers, bakers, masons, laborers, and chimney sweepers are very liable to obstinate pulmonic diseases, as are also in an equal degree the dressers of flax and feathers and work-men in the warehouses of leather-sellers." Sir James Clarke states, that in the large manufactories of Cutlery ware the men employed in grinding forks, which are ground dry, are very subject to phthisis, and very few of them ever arrive at the age of forty five years, while those, who are employed in grinding knives, which are ground wet, are as healthy as any class

of laboring men. Good gives an account of a cavern at Meisenheim on the Rhine in which mill stones are dug and worked, a fine dust is constantly floating, that even penetrates leathern bags and discolors money contained in them. The workmen become consumptive, insomuch that it is an epidemic. No one can remain twelve months there without contracting the disease and some are immediately affected: and that too notwithstanding the warm state of the atmosphere in that cavern during winter as well as summer.

The exciting causes are those, which determine the local deposition of tuberculous matter or awaken into diseased action, the predisposition before existing - these are chiefly colds inflammations and other diseases of the lung which seldom produce phthisis, in those not predisposed: they may occasionally do so, still such cases are uncommon and consumption rarely occurs except a predisposition exist. It is therefore by preventing as much as possible the hereditary transmission of the predisposition or by counteracting it that we must hope to diminish the frequency of the disease.

If parents were more acquainted with the fact that the health of their children, in a great measure, depends upon the integrity of their own health, a beneficial effect might be produced upon society at large. Says a recent author, if a more healthy mode of living were adopted by persons in that rank of life, which gives them the power of choice, and if more consideration were bestowed upon matrimonial alliances, the disease, which is so

often entailed upon their offspring might not only be prevented, but even the predisposition to it extinguished in their families in the course of a few generations." Could we impress upon the minds of those predisposed the duty of abstaining from matrimonial alliances, a great point would be gained; but this is an exceedingly difficult matter to accomplish - persons will make these alliances and they will make them according as inclination leads without the least regard to considerations of health. In the young it is true, there is much excuse. Females in whom the disease exists in a latent form, are often the finest and most brilliant of their sex - with minds and persons prematurely and, as it were, preternaturally developed, to a superficial observer, they appear blooming (with health) even when the destroyer has almost finished his work. Such persons are as fragile as they are fair, and the slightest exposure is oftentimes sufficient to fan the slumbering disease into a flame which soon consumes the victim. I need not add that such should not marry.

Very early marriages should also be avoided, - by early marriages I mean those which take place before the system is developed. The skipping from college and the girl from the boarding "School" are ill-fitted to sustain the toil and care incident upon the matrimonial state. Even when speaking on this subject remarks Forbes, "the examples of the evils resulting from precocious unions are familiar to every body - they are not limited to the diminished vigor and shortened life of the male, nor to the faded beauty, blasted health and premature old age of the female, for these

are extended to their unhappy offspring, on whom they have perhaps entailed a diminutive stature, debility of body and imbecility of mind; or handed down to them a strong predisposition to consumption, rickets, "scrofula &c."

Above all, according to Sir James Clarke - "persons should avoid the too common practice of intermarrying among their own immediate relatives - a practice, at once a fertile source of insanity, a sure mode of deteriorating the intellectual and physical powers and eventually the means of extinguishing a degenerated race" In support of his opinion he quotes Good as follows, "there can be no question, that intermarriages between collateral branches of the same family, and more than any thing else to fix and multiply and aggravate the hereditary predisposition - and hence nothing can be wiser on physical as well as on moral grounds, than the restraints, which divine and human laws have concurred in laying on marriages between relatives". Still as long as human nature remains as it now is, it is almost if not entirely useless to urge any considerations of this kind. Mankind are far too reckless to heed any suggestions on this subject; and notwithstanding all that medical men can do or say to prevent; these ill-assorted unions will take place and becomes necessary to guard their offspring against any ill-consequences which may arise from the rashness and folly of the parents.

In pursuing our remarks on the subject of Education, we shall apply our observations to the periods of childhood and youth,

The rules for promoting the health of strumous children are very much the same as for others, only they require to be enforced with far greater strictness. Unless this is the case, the children of unhealthy parents stand but little chance of arriving at maturity. The management of children and youth has improved very much of late, but it is still lamentably deficient in many important points. We shall proceed to make some remarks upon the diet, drink, air exercise, amusement and occupation best adapted to childhood and youth, and first of diet. This should always be nutritious and if possible should be adapted to the respective states of each individual. This last is no easy matter to accomplish. For some are best suited with a milk diet, while to others meat is indispensable. For my own part, I am inclined to think a diet consisting principally of meat, is best adapted to the growth of children. Consumption says a recent writer, is rare among butchers and slaughter men, their wives and errand-boys, who eat fresh cooked meat, at least twice a day - if a sickly person is seen among them, it is because his parents, aware of a hereditary predisposition in their families, have placed him among this class of laborers in order to obviate any tendency to disease. The food should also be sufficient in quantity. Insufficiency of diet is one of the chief causes of scrofula, rickets and other diseases prevalent among the poor. If persons would allow themselves to be guided by the same common sense and experience, which guides the farmer in his endeavors to make large and handsome animals, we should have a far less number of cases of consumption. It seems

diet, especially in scrofulous subjects, if it does not produce unpleasant symptoms is the best. Yet the other extreme of over-feeding must be avoided. Says Morton, in his "illustrations of consumption", extremes of diet are the fountains of disease: and he who, by an opposite plan, attempts to eradicate tubercles by confining his patients to a course of biscuit and water, and the use of vegetables, will often have the mortification to see the powers of life sink rapidly under so meagre a regimen.

The dress should be light, that the motions of the child may be unfettered and unrestrained; it should also be loose, especially about the chest, that the lungs may expand, on the inspiration of air, to their fullest extent. The great object of clothing being protection from cold, the dress should be adapted rather to the actual state of the ~~atmosphere~~ temperature than the name of the season. Probably more children are destroyed by cold than by all the other causes of disease combined. Whenever the surface of the body is kept so cold as to produce uneasiness and distress, the circulation of the blood there is diminished and the internal organs proportionably overloaded and oppressed. In fact, says Morton, it may be safely asserted that the integrity of no one of the organic functions is more essential to health than that of the skin and, he adds, I am convinced, after much observation that a large number of the consumptions that occur between the ages of eighteen and thirty years might have been prevented by proper attention to dress in childhood. The idea of "hardening" the child as it is called, by exposing it to cold is preposterous and absurd and should by all means be corrected. What else can we expect but that

catarrhs, coughs and other affections of the lungs will occur when we see the arms, shoulders and frequently a large part of the chests of delicate children exposed to the chilling blasts of winter or the cold damp winds of spring? Persons of mature age dress with far too little regard to warmth. Human caprice is no where so manifested as in dress. Experience, disease and death convey unheeded warnings to the blind devotees of fashion. The custom which prevails among young females of going with exposed necks and shoulders, together with the foolish, senseless but very common practice of tight-dressing, is annually hurrying its thousands to the grave. Early attention should be paid to the exercise and habits of children. The air of their apartments should wholesome - all soiled clothes and every thing which can tend to deteriorate the atmosphere should be immediately removed. If there is a place on earth, in which fresh air is essential, it is a nursery, where young children are kept. The period fraught with the most danger is the time when the child is sent to school - it is now to be confined for some six hours or more, each day, in a crowded room, under the eye of a task-master, to whom perhaps he looks with dread. This is peculiarly the case at the present day. Infant schools and infant education is one of the humbugs of the age, in which we live. Children scarcely able to to walk are sent to school, when they should be allowed to indulge in innocent amusements. A boy's great business is to grow - to develope form and harden his expanding frame into something like its natural perfection and in this manner lay the foundation for health, strength and long life. The Persian Cyrus when

a child learned but to ride, shoot and speak the truth, and Walter Scott informs us that he taught his boys nothing more. Judge Kent, in a letter to Dr Wiegram states, that while at school and also at college, he took far more care of his body than of his mind and it was not until, he found himself, at the age of twenty four years, with little knowledge of his profession, but with a manly frame and vigorous constitution, dependant upon his own exertions for support, that he began to apply himself to his books. These examples are not brought forward as apologies for indolence, but merely to show the little need of haste in commencing an education. What is the meaning of the term education? - it is from the Latin "educatio" - a leading forth. - to educate a pupil then is to lead forth - bring out - developse the leading principles and faculties of his nature". The great object then of juvenile studies should be developement. The child does not need mental exercise, - he invariably suffers from it. - His mind instinctively takes all the exercise, that is good for it. It is a matter of notoriety that when children are obliged by poverty to do a great deal of hard work daily, as in large manufactories they very generally come to be dumpish and short lived men. The great danger is that more action of the brain will be produced, than can be balanced by impartial exercise of the whole system. Instead of being confined the greater part of the day, children should be allowed to run about in the open air, when the weather permits and enjoy themselves in the way their fancy dictates. On this subject, we quote the remarks of one of our periodical writers -

speaking of "school boys he says, the more potent he is among his fellows - the more moderate his vagrancy - the more inexplicable his laughter - the stronger his preference for the outside of a house over the inside - the more invincible his aversion to long lessons and unintelligible lectures, the more hopeful you may think him". Girls stand in far greater danger than boys, for the latter will engage in hearty exercise, by which they, in some measure compensate for the mental labor they have been performing. In many schools, the degree, to which, study and confinement are carried, is almost incredible. - one author goes so far as to call "female boarding schools, the hot beds of consumptions." In fashionable seminaries, where the education of young ladies is finished, as it is termed, six, eight and ten hours are spent in hard study, while the only exercise allowed, is the daily walk, when they are marched in pairs, by their teachers, with dull monotonous gait, resembling as Beddoes says, a funeral procession rather than a gang of school girls. May not the pale faces, weak eyes and relaxed habits, with which, many return to their homes, ~~be accounted~~ arise from want of active exercise in the open air. The practice of obliging children and youth to remain within doors and to con over their lessons between school hours, says Reeves, is by no means commendable." He adds, nothing contributes more effectually to enfeeble the body and lay the foundation of permanent constitutional infirmity, than confinement within doors and want of active exercise at the growing period of life."

Active exercise is also recommended for patients with confirmed

phthisis Says Dr Parish, vigorous exercise and free exposure to the air, are by far, the most efficient remedies in pulmonary consumption" The plan of confining the patient to his room and keeping him on low diet: has long since been exploded. Dr Rush remarks, "the remedies for consumption, must be sought for, in those exercises and employments which give greatest vigor to the constitution".

Change of climate is also advised for those laboring under incipient phthisis. Volumes have been written on the subject experience has ~~shown~~ amply proved, that a dry atmosphere to be most beneficial to consumptive patients, when combined with the aroma arising from pine forests. — this fact was observed as long ago as the time of Herodotus, who used to send patients with phthisis to the pine forests of Egypt, which being dry and airy were highly grateful. Norton thinks he has known coughs, which would have induced consumption, radically cured by change of residence from the city (Philadelphia) to the pine regions of New Jersey. Those situations are undoubtedly the best, which approach nearest the nearest approach to an equable temperature. All sudden changes are deleterious, particularly from warm to cold - this is especially the case when the change is accompanied with moisture.

Affluence is to a certain degree a protection against phthisis since it enables the possessors to avoid many of the remote causes of the disease and also gives them the power of availing themselves of the preventative measures.

Tranquillity of mind

is also of very great importance - the buoyant spirits joined to the hope of getting well, so common in phthisis, tend greatly to retard the progress of the disease - it also induces the patient to persevere in his accustomed active habits, by which his appetite is preserved - his sleep endured more refreshing, the hectic moderated and consequently the hectic moderated and consequently the strength of the system supported and prolonged. If we are unable to arrest the progress of this disease by attending to the preceding considerations, all we can do, is to make the patient comfortable. The disease is one, in the consideration of which we must sooner or later come to the mortifying conclusion, that the aid of medicine is of no avail.

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